Product Datasheet

QuikChIP ChIP Kit
NBP2-29902

Unit Size: 1 Kit

Storage of components varies. See protocol for specific instructions.

Publications: 36

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# QuikChIP ChIP Kit

## Product Information

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<th>Unit Size</th>
<th>1 Kit</th>
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<tr>
<td>Concentration</td>
<td>Concentration is not relevant for this product. Please see the protocols for proper use of this product.</td>
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<tr>
<td>Storage</td>
<td>Storage of components varies. See protocol for specific instructions.</td>
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## Product Description

**Description**

The QuikChIP(TM) Kit contains components for 25 ChIP assays optimized for use with transcriptionally active chromatin in adherent or suspension mammalian cells. The protocol is optimized for use with one 10 cm plate containing $5 \times 10^6$ cells per preparation. Each ChIP assay requires approximately $1 \times 10^6$ cells. Thus, a 10 cm plate (one preparation) of cells will provide DNA sufficient for five ChIP assays.

**Features:**
- Quick and simple.
- Optimized ready-to-use buffers and protocol are included.
- Can be used for both histone and non-histone proteins.
- Reagents for 25 ChIP assays and sheared DNA preparations.

**Species**

Human, Mouse, Bacteria

**Reactivity Notes**

Mouse reactivity reported in scientific literature (PMID: 23709694). Bacteria reactivity reported in scientific literature (PMID: 24363348). Human reactivity reported in scientific literature (PMID: 21086175).

**Kit Components**

- Wash Buffer A (25 mL), Wash Buffer B (25 mL), Wash Buffer C (25 mL), Wash Buffer D (25 mL), SDS Lysis Buffer (15 mL), 10X Glycine (25 mL), 10X PBS (55 mL), ChIP Dilution Buffer (50 mL), Salmon Sperm DNA/Protein A/G Agarose (2 x 1.75 mL), RNase A at 10 mg/mL (60 uL), 100X PMSF (0.75 mL), 100X PIC (0.75 mL), Proteinase K at 10 mg/mL (60 uL), 20% SDS (625 uL), 0.5M EDTA (250 uL), 5M NaCl (500 uL), 1M Tris-HCl pH 6.5 (500 uL)

**Notes**

Additional Materials Required (not included in this kit):
- Reagents: Cells of interest, Antibody of interest, Appropriate antibody control, 37% Formaldehede, 3M Sodium Acetate (pH 5.2), Phenol/chloroform (optional), 100% ethanol, 70% ethanol, Taq DNA polymerase, dNTP mixture, Cell culture media, ddH2O.

## Product Application Details

**Applications**

Chromatin Immunoprecipitation, Immunoprecipitation

**Recommended Dilutions**

Chromatin Immunoprecipitation, Immunoprecipitation

**Application Notes**

Use in Immunoprecipitation reported in scientific literature (PMID 21957289).
Chromatin Immunoprecipitation: Quick ChIP Kit [NBP2-29902] - Human MCF-7 cells were fixed for 10 minutes with 1% formaldehyde. The cells were lysed and the chromatin sonicated (200-1000 bp fragments). Chromatin was immunoprecipitated using DNMT3b mAb, (Lane 2) and a no antibody control (Lane 3). The PCR amplification was performed with primers specific to the progesterone receptor (PR) promoter region as follows: 94C 5 min, 94C 30 sec, 59C 30 sec 40 cycles, 72C 30 sec, 72C 10 min. Following PCR, 20 ul of each sample was analyzed on a 2% agarose gel and visualized by UV-illumination following ethidium bromide staining. PCR product was observed in the DNMT3b mAb ChIP (Lane 2) and not in the control (Lane 3).
Publications


Naderi A. C1orf64 is a novel androgen receptor target gene and coregulator that interacts with 14-3-3 protein in breast cancer Oncotarget 2017 Aug 22 [PMID: 28915724] (ChIP, Human)

Das L, Kokate SB, Dixit P et al. Membrane-bound β-catenin degradation is enhanced by ETS2-mediated Siah1 induction in Helicobacter pylori-infected gastric cancer cells. Oncogenesis May 8 2017 12:00AM [PMID: 28481365] (ChIP, Human)


Ke H, Masoumi KC, Ahlqvist K et al. Nemo-like kinase regulates the expression of vascular endothelial growth factor (VEGF) in alveolar epithelial cells. Sci Rep. 2016 Apr 02 [PMID: 27035511] (ChIP)


Details:
QuikChIP kit was used for ChIP assay on the human malignant glioma cell line LN-18 and the assay involved - cross-linking/fixation of cells with 1% formaldehyde for 10 minutes at 37C, lysis with SDS buffer containing protease inhibitor cocktail, sonication to create DNA fragments of 200–1000 bp in size, IP with IgG, STAT3 or BCLAF1 antibodies followed by incubation with DNA/Protein A/G agarose, de-crosslinking of immunoprecipitated DNA fragments, QIAquick PCR purification and Semi-quantitative PCR.


Li Y, Chitnis N, Nakagawa H et al. PRMT5 is required for lymphomagenesis triggered by multiple oncogenic drivers Cancer Discov. 2015 Jan 12 [PMID: 25582697] (ChIP)


Bitar Ms, Al-Mulla F. CREM/ICERs up-regulation suppresses sponge endothelial CRE-HIF-1Alpha-VEGF-dependent signaling and impairs angiogenesis in type 2 diabetes Dis Model Mech et al. 2014 Nov 07 [PMID: 25381014] (ChIP)

More publications at http://www.novusbio.com/NBP2-29902
Procedures

MSDS (NBP2-29902)
TRITON X-100

Hazard Information
Chemical Name: TRITON X-100
Chemical Formula: (C2-H4-O)nC14-H22-O CAS Number: 9002-93-1
EEC-No: n/a

First Aid Measures
Eye Contact: Can causes eye irritation.
Skin Contact: Causes skin irritation and is toxic if absorbed through skin. Inhalation: May be harmful if inhaled. Causes respiratory tract irritation. Ingestion: Harmful if swallowed.

Accidental Release Measures
If inhaled, move person into fresh air. If not breathing give artificial respiration and consult a physician.
In case of skin contact, wash off with soap and plenty of water.
In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes.
If swallowed do NOT induce vomiting. Rinse mouth with water and consult a physician.

Handling and Storage
Handling: Avoid contact with skin and eyes. Keep container tightly closed and store and handle in a cool, dry, well-ventilated place.

Exposure Controls / Personal Protection
Ventilation: Handle in a well-ventilated area
Gloves: Handle with rubber or latex gloves
Eye Protection: Safety glasses, goggles or face shield to protect from splash hazard

Physical and Chemical Properties
Form: Liquid
Color: Colorless
Odor: Odorless
Melting Point: 6 degrees C (42.8 degrees F)
Boiling Temperature: 270 degrees C (518 degrees F)
Density: No data available
Vapor Pressure: No data available
Solubility in Water: Very soluble
Flash Point: No data available
Explosion limits: No data available
Ignition Temperature: No data available

Stability and Reactivity
Stable under recommended storage conditions.

Disposal/Spill Considerations
Small Spill: Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill: Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Sodium Dodecyl Sulphate

Hazard Information
Chemical Name: Sodium Dodecyl Sulphate
Chemical Formula: NaC12H25O4S
CAS Number: 151-21-3
EEC-No: 205-788-1

First Aid Measures
Eye Contact: Can causes eye irritation.
Skin Contact: Causes skin irritation and is toxic if absorbed through skin. Inhalation: May be harmful if inhaled. Causes respiratory tract irritation. Ingestion: Harmful if swallowed.

Accidental Release Measures
If inhaled, move person into fresh air. If not breathing give artificial respiration and consult a physician.
In case of skin contact, wash off with soap and plenty of water.
In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes.
If swallowed do NOT induce vomiting. Rinse mouth with water and consult a physician.

Handling and Storage
Handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Handle powder in a fume hood. Keep container tightly closed in a cool, dry, well-ventilated place.

Exposure Controls / Personal Protection
Ventilation: Handle powder in a fume hood
Gloves: Handle with rubber or latex gloves
Eye Protection: Safety glasses, goggles or face shield

Physical and Chemical Properties
Form: Solid
Color: White
Odor: Odorless
Melting Point: No data available
Boiling Temperature: No data available
Density: No data available
Vapor Pressure: No data available
Solubility in Water: Very soluble
Flash Point: No data available
Explosion limits: No data available
Ignition Temperature: No data available

Stability and Reactivity
Stable under recommended storage conditions.

Disposal Considerations
Contain spill collect with a vacuum cleaner or by wet-brushing and place in a container for disposal according to local regulations. Keep in suitable, closed containers for disposal.

EDTA

Hazard Information
Chemical Name: Ethylenediaminetetraacetic Acid Tetrasodium Salt, Dihydrate
Chemical Formula: C10H12N2Na4O8.2H2O
CAS Number: 10378-23-1

First Aid Measures
Eye Contact: Can cause slight eye irritation. Skin Contact: Can cause slight skin irritation.
Inhalation: Can cause slight respiratory tract irritation.
Ingestion: Harmful if swallowed.

Accidental Release Measures
If inhaled, move person into fresh air. If not breathing give artificial respiration and consult a physician.
In case of skin contact, wash off with soap and plenty of water.
In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes.
If swallowed do NOT induce vomiting. Rinse mouth with water and consult a physician.

Handling and Storage
Handling: Avoid contact with skin and eyes. Keep container tightly closed in a cool, dry, well-ventilated place.

Exposure Controls / Personal Protection
Ventilation: Handle in a well-ventilated area
Gloves: Handle with rubber or latex gloves
Eye Protection: Safety glasses, goggles or face shield

Physical and Chemical Properties
Form: Solid Color: White
Odor: No data available
Melting Point: No data available Boiling Temperature: No data available Density: No data available
Vapor Pressure: No data available Solubility in Water: soluble
Flash Point: > 93.3 degrees C (200 degrees F) Explosion limits: No data available Ignition Temperature: No data available

Stability and Reactivity
Stable under recommended storage conditions.

Disposal Considerations
Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Glycine (Glycerine)

Hazard Information
Chemical Name: Glycine (Glycerine) Chemical Formula: C2H5NO2
CAS Number: 56-40-6

First Aid Measures
Eye Contact: Can cause slight eye irritation. Skin Contact: Can cause slight skin irritation.
Inhalation: Can cause slight respiratory tract irritation. Ingestion: Harmful if swallowed.

Accidental Release Measures
If inhaled, move person into fresh air. If not breathing give artificial respiration and consult a physician.
In case of skin contact, wash off with soap and plenty of water.
In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes.
If swallowed do NOT induce vomiting. Rinse mouth with water and consult a physician.

Handling and Storage
Handling: Avoid contact with skin and eyes. Keep container tightly closed in a cool, dry, well-ventilated place.

Exposure Controls / Personal Protection Ventilation: Handle in a well-ventilated area
Gloves: Handle with rubber or latex gloves
Eye Protection: Safety glasses, goggles or face shield to prevent splash hazard

Physical and Chemical Properties
Form: Liquid Color: Colorless Odor: Odorless
Melting Point: Decomposition temperature: Starts to decompose at 233 degrees C (451.4 degrees F); Completely sintered at 280 deg. C.
Boiling Temperature: No data available Density: No data available
Vapor Pressure: No data available Solubility in Water: soluble
Flash Point: >176.67 degrees C (350 degrees F)
Explosion limits: No data available Ignition Temperature: No data available

Stability and Reactivity
Stable under recommended storage conditions.

Disposal Considerations
Small Spill: Use appropriate tools to put the spill in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

PMSF

Hazard Information
Chemical Name: Phenylmethylsulfonyl fluoride Chemical Formula: C7H7FO2S
CAS Number: 329-98-6

First Aid Measures
Eye Contact: Can cause slight eye irritation. Skin Contact: Can cause slight skin irritation. Inhalation: Can cause slight respiratory tract irritation. Ingestion: Harmful if swallowed.

Accidental Release Measures
If inhaled, move person into fresh air. If not breathing give artificial respiration and consult a physician. In case of skin contact, wash off with soap and plenty of water. In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes. If swallowed do NOT induce vomiting. Rinse mouth with water and consult a physician.

Handling and Storage
Handling: Avoid contact with skin and eyes. Keep container tightly closed in a cool, dry, well-ventilated place.

Exposure Controls / Personal Protection
Ventilation: Handle in a well-ventilated area
Gloves: Handle with rubber or latex gloves
Eye Protection: Safety glasses, goggles or face shield

Physical and Chemical Properties
Form: Solid
Color: No data available
Odor: No data available
Melting Point: 92 degrees C (197.6 degrees F)
Boiling Temperature: No data available
Density: No data available
Vapor Pressure: No data available
Solubility in Water: soluble
Flash Point: No data available
Explosion limits: No data available
Ignition Temperature: No data available

Stability and Reactivity
Stable under recommended storage conditions.

Disposal Considerations
Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Large Spill: Corrosive solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal.

Protease Inhibitor Cocktail

Hazard Information
Chemical Name: 4-(2-Aminoethyl) benzenesulfonylfluoride hydrochloride Chemical Formula: C8H10FNO2S HCl
CAS Number: 30827-99-7

First Aid Measures
Eye Contact: Can cause slight eye irritation. Skin Contact: Can cause slight skin irritation. Inhalation: Can cause slight respiratory tract irritation. Ingestion: Harmful if swallowed.

Accidental Release Measures
If inhaled, move person into fresh air. If not breathing give artificial respiration and consult a physician.
In case of skin contact, wash off with soap and plenty of water.
In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes.
If swallowed do NOT induce vomiting. Rinse mouth with water and consult a physician.

Handling and Storage
Handling: Avoid contact with skin and eyes. Keep container tightly closed in a cool, dry, well-ventilated place.

Exposure Controls / Personal Protection Ventilation: Handle in a well-ventilated area Gloves:
Handle with rubber or latex gloves
Eye Protection: Safety glasses, goggles or face shield

Physical and Chemical Properties
Form: Solid Color: beige
Odor: No data available Melting Point: 183 degrees C (361 degrees F)
Boiling Temperature: No data available Density: No data available
Vapor Pressure: No data available Solubility in Water: soluble
Flash Point: No data available Explosion limits: No data available Ignition Temperature: No data available

Stability and Reactivity
Stable under recommended storage conditions.

Disposal Considerations
Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Large Spill: Corrosive solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal.

Salmon sperm DNA

Hazard Information
Chemical Name: Salmon sperm DNA Chemical Formula: n/a
CAS Number: 100403-24-5
EEC-No: 309-566-6

First Aid Measures
Eye Contact: May cause eye irritation. Skin Contact: May cause skin irritation. Inhalation: May be harmful if inhaled. Ingestion: May be harmful if swallowed.

Accidental Release Measures
If inhaled, move person into fresh air. If not breathing give artificial respiration and consult a physician.
In case of skin contact, wash off with soap and plenty of water.
In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes.
If swallowed do NOT induce vomiting. Rinse mouth with water and consult a physician.

Handling and Storage
Handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Handle powder in a well-ventilated area. Keep container tightly closed in a cool, dry, well-ventilated place.

Exposure Controls / Personal Protection Ventilation: Handle powder in a well-ventilated area Gloves: Handle with rubber or latex gloves
Eye Protection: Safety glasses, goggles or face shield

Physical and Chemical Properties
Form: Solid Color: White
Proteinase K

Hazard Information
Chemical Name: Proteinase K, from Tritirachium album CAS Number: 39450-01-6

First Aid Measures
Eye Contact: Can cause slight eye irritation. Skin Contact: Can cause slight skin irritation. Inhalation: Can cause slight respiratory tract irritation. Ingestion: Harmful if swallowed.

Accidental Release Measures
If inhaled, move person into fresh air. If not breathing give artificial respiration and consult a physician. In case of skin contact, wash off with soap and plenty of water. In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes. If swallowed do NOT induce vomiting. Rinse mouth with water and consult a physician.

Handling and Storage
Handling: Avoid contact with skin and eyes. Keep container tightly closed in a cool, dry, well-ventilated place.

Exposure Controls / Personal Protection
Ventilation: Handle in a well-ventilated area Gloves: Handle with rubber or latex gloves Eye Protection: Safety glasses, goggles or face shield to prevent splash hazard

Physical and Chemical Properties
Form: Solid
Color: No data available Odor: No data available
Melting Point: No data available Boiling Temperature: No data available Density: No data available
Vapor Pressure: No data available Solubility in Water: soluble
Flash Point: No data available Explosion limits: No data available Ignition Temperature: No data available

Stability and Reactivity
Stable under recommended storage conditions.

Disposal Considerations
Small Spill: Use appropriate tools to put the spill in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.
Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Kits are guaranteed for 6 months from date of receipt.

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