Product Datasheet

HIF-1 alpha Antibody (ESEE122)
NB100-131

Unit Size: 0.1 ml

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

Reviews: 3  Publications: 74

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# NB100-131
HIF-1 alpha Antibody (ESEE122)

## Product Information

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Size</td>
<td>0.1 ml</td>
</tr>
<tr>
<td>Concentration</td>
<td>1.0 mg/ml</td>
</tr>
<tr>
<td>Storage</td>
<td>Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.</td>
</tr>
<tr>
<td>Clonality</td>
<td>Monoclonal</td>
</tr>
<tr>
<td>Clone</td>
<td>ESEE122</td>
</tr>
<tr>
<td>Preservative</td>
<td>0.05% Sodium Azide</td>
</tr>
<tr>
<td>Isotype</td>
<td>IgG1</td>
</tr>
<tr>
<td>Purity</td>
<td>Protein G purified</td>
</tr>
<tr>
<td>Buffer</td>
<td>Tris-Glycine, 0.15M NaCl</td>
</tr>
<tr>
<td>Target Molecular Weight</td>
<td>93 kDa</td>
</tr>
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## Product Description

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host</td>
<td>Mouse</td>
</tr>
<tr>
<td>Gene ID</td>
<td>3091</td>
</tr>
<tr>
<td>Gene Symbol</td>
<td>HIF1A</td>
</tr>
<tr>
<td>Species</td>
<td>Human, Mouse, Rat, Bovine, Canine</td>
</tr>
<tr>
<td>Reactivity Notes</td>
<td>Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Additional Mouse on Mouse blocking steps may be required for IHC and ICC experiments. Please contact Technical Support for more information.</td>
</tr>
<tr>
<td>Immunogen</td>
<td>This HIF-1 alpha Antibody (ESEE122) was developed against Human HIF-1 alpha, corresponding to amino acids 329 - 530 [Uniprot# Q16665].</td>
</tr>
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</table>

## Product Application Details

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications</td>
<td>Western Blot, Simple Western, Immunoblotting, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation</td>
</tr>
<tr>
<td>Recommended Dilutions</td>
<td>Western Blot 1:500 - 1:1000, Simple Western 1:2000, Immunohistochemistry 1:100 - 1:5000, Immunocytochemistry/Immunofluorescence 1:100, Immunoprecipitation 1:10 - 1:500, Immunohistochemistry-Paraffin 1:100 - 1:5000, Immunohistochemistry-Frozen 1:100 - 1:5000, Immunoblotting</td>
</tr>
<tr>
<td>Application Notes</td>
<td>Variable results have been obtained in Western blot. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. Separated by Size-Wes, Sally Sue/Peggy Sue. Use in immunoprecipitation reported in scientific literature (PMID: 26757928; Fig 1G).</td>
</tr>
</tbody>
</table>
Images

**Simple Western: HIF-1 alpha Antibody (ESEE122) [NB100-131]** - Image shows a specific band for HIF-1 alpha in 0.5 mg/mL of Hypoxic HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.

**Immunocytochemistry/Immunofluorescence: HIF-1 alpha Antibody (ESEE122) [NB100-131]** - Detection of HIF-1 alpha (red dye 568) in a cultured raw mouse macrophage cell line, using NB100-131. Photos courtesy of Susan Alexander and Hattie Gresham, PhD.

**Immunohistochemistry: HIF-1 alpha Antibody (ESEE122) [NB100-131]** - HIF-1 alpha staining in hypoxia-induced human placenta.

**Immunohistochemistry-Paraffin: HIF-1 alpha Antibody (ESEE122) [NB100-131]** - Analysis of a FFPE tissue section of human renal cancer xenograft using HIF-1 alpha antibody (NB100-131 Lot 83115) at 1:200 dilution. The antibody generated a strong cytoplasmic staining mainly in the cancer cells. Only a fraction of cells depicted nuclear staining, while weak to negligible positivity was seen in the tumor stromal cells.
Immunocytochemistry/Immunofluorescence: HIF-1 alpha Antibody (ESEE122) [NB100-131] - Detection of HIF-1 alpha (red dye) in a cell cytospin from a lavage of a murine skin pouch infected with S. aureus. 100X magnification. Blue: DAPI nuclear staining.

Immunocytochemistry/Immunofluorescence: HIF-1 alpha Antibody (ESEE122) [NB100-131] - Detection of HIF-1 alpha (red dye) in a cell cytospin from a lavage of a murine skin pouch infected with S. aureus, using NB100-131. Blue: DAPI nuclear staining. Image courtesy of Susan Alexander and Hattie Gresham, PhD.

Immunocytochemistry/Immunofluorescence: HIF-1 alpha Antibody (ESEE122) [NB100-131] - Detection of HIF-1 alpha (red dye 568) in a cultured raw mouse macrophage cell line. 100X magnification. Image courtesy of Susan Alexander and Hattie Gresham, PhD.

Immunohistochemistry-Paraffin: HIF-1 alpha Antibody (ESEE122) [NB100-131] - Analysis of a FFPE mouse kidney tissue section using HIF-1 alpha antibody clone ESEE122 at 1ug/mL concentration. The detection was performed using X-cell plus universal HRP polymer detection system with Vector SG chromagen substrate. Image courtesy of a product review by Steven Grover.
Immunohistochemistry-Paraffin: HIF-1 alpha Antibody (ESEE122) [NB100-131] - Analysis of HIF-1 alpha in paraffin-embedded mouse kidney tissue section using anti-HIF-1 alpha antibody. Image from verified customer review.

Immunohistochemistry-Paraffin: HIF-1 alpha Antibody (ESEE122) [NB100-131] - Negative control stain of human placenta (from sea level) using mouse IgG at 1:100. 4uM paraffin-embedded section.
## Publications

Rossow L, Veitl S, Vorlova S et al LOX-catalyzed collagen stabilization is a proximal cause for intrinsic resistance to chemotherapy. Oncogene. 2018 Sep [PMID: 29780168] (IHC, Mouse)

Details:
Citation using the HRP version of this antibody.


Koh J, Jang JY, Keam B et al. EML4-ALK enhances programmed cell death-ligand 1 expression in pulmonary adenocarcinoma via hypoxia-inducible factor (HIF)-1α and STAT3. Oncoimmunology 2015 Oct 29 [PMID: 27141364] (IHC, Human)


Hempe Casper, Hoyer Nils, Kildemoes Anna et al. Systemic and Cerebral Vascular Endothelial Growth Factor Levels Increase in Murine Cerebral Malaria along with Increased Calpain and Caspase Activity and Can be Reduced by Erythropoietin Treatment. Frontiers in Immunology 2014 [PMID: 24995009] (WB, Mouse)

Kanakis G, Grimalius L, Papaioannou D et al. Can insulin-like growth factor 1 (IGF-1), IGF-1 receptor connective tissue growth factor and Ki-67 labelling index have a prognostic role in pulmonary carcinoids? Oncotarget Apr 27 2018 12:00AM [PMID: 29854305] (IHC, Human)

Gestier S. Methodology for the measurement of HIF-1alpha in bovine leukocytes and assessment of the molecule as a biomarker for bovine respiratory disease outcome. Thesis. 2014 (FLOW, Bovine)

Procedures

Immunohistochemistry Protocol for HIF-1 alpha Antibody (NB100-131)

Procedure Guide for NB 100-131 Monoclonal Anti-HIF-1 alpha

Immunohistochemistry Procedures

Paraffin Sections

1. Prior to performing the IPOX (immunoperoxidase) experiment, dewax the paraffin sections by baking them at 60 degrees C for 30 minutes and then putting them through citroclear [Citroclear is a mounting agent (chemical name Limonene, also known as Histoclear, BioClear)].

2. Hydrate the sections through the following series:
   A. 3 X 5 minutes xylenes
   B. 3 X 5 minutes 100% EtOH
   C. 2 minutes 95% EtOH
   D. 2 minutes 70% EtOH
   E. 1 minute 50% EtOH
   F. 1 minute ddH2O
   G. 1 minute TBS

3. Block endogenous peroxidase with 0.5% hydrogen peroxide in water, for 30 minutes.

4. Antigen unmasking is performed by incubating at 60 degrees C for 16 hours, in 50 mmol/L Tris and 0.2 mmol/L EDTA (pH 9.0), using a covered water bath.

1. Rinse slides with PBS and then incubate with PBS containing 0.2% Triton X-100 for 10 minutes.

2. Rinse slides with PBS.

3. Incubate sections with 1:8000 dilution of anti-HIF-1 alpha (NB100-131) for 90 minutes at room temperature (RT).

4. Incubate sections in secondary HRP-conjugated goat anti-mouse serum for 30 minutes at RT.

5. Incubate sections in tertiary HRP-conjugated rabbit anti-goat serum for 30 minutes at RT.

6. Develop the peroxidase reaction using diaminobenzidine.

7. Wash slide and mount in aqueous mountant.

Substitution of the primary antibody with PBS can be used as a negative control.

1. Deparaffinize to water:Xylene #1-10 dips Xylene #2-10 dips 100% EtOH #1-10 dips 100% EtOH #2-10 dips 95% EtOH-10 dips 70% EtOH-10 dips ddH2O-2 changes

2. Rinse in PBS for two minutes.

3. Quench slides is MeOH/H2O2 for 5-10 minutes (1 part 30% H2O2/36 parts 70% MeOH; 8 mls H2O2/288 mls 70% MeOH).

4. Unmask antigens by boiling for 3 minutes in 0.01 M Citrate Buffer, pH 5.5. 47.2 gr Sodium Citrate 8.3 gr Citric Acid pH to 5.5 qs to 0.5 L dH2O

5. Rinse in PBS.

6. Apply 2 drops blocking solution (10% non-immune normal goat serum, Zymed Labs, Cat # 50-197). Incubate for 10 minutes in humidity chamber

7. Incubate for 10 minutes in humidity chamber.

8. Do not rinse.

9. Incubate in mAb HIF-1 alpha (cat# NB 100-131), diluted 1:250 in PBS (10ul /2.5mls) overnight at 4 degrees C, in humidity chamber.

10. Rinse in PBS.

11. Incubate in 2 drops Biotinylated Secondary Antibody for 10 minutes in humidity chamber.

12. Rinse in PBS.

13. Incubate in 2 drops Enzyme Conjugate solution (HRP-Streptavidin) for 10 minutes in humidity chamber.

14. Rinse in PBS.

15. Incubate in 2 drops Substrate-Chromatogen solution AEC solution, (AEC Single Solution, Zymed Labs, Cat# 00-111) for 5-10 minutes in humidity chamber.

16. Rinse well in dH2O.

17. Counterstain with hematoxylin for 1 minute.

18. Rinse well in tap water until it runs clear.

19. Mount coverslip with water soluble mounting media. Do not dehydrate. (Alcohols will remove the AEC color).
Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

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