

# Product Datasheet

## Delta Np73 Antibody (38C674.2) - BSA Free NBP2-24873SS

Unit Size: 0.025 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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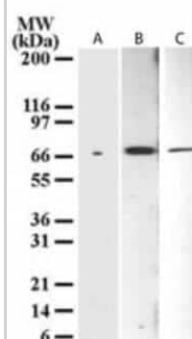
**NBP2-24873SS**

Delta Np73 Antibody (38C674.2) - BSA Free

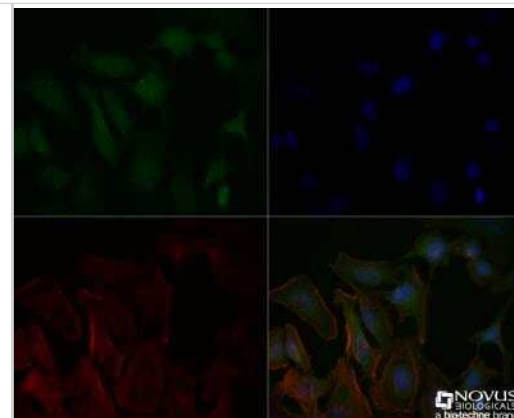
Product Information	
Unit Size	0.025 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	38C674.2
Preservative	0.02% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein G purified
Buffer	PBS
Product Description	
Host	Mouse
Gene ID	7161
Gene Symbol	TP73
Species	Human, Mouse, Rat
Immunogen	This antibody was developed against a peptide corresponding to a portion of amino acid residues 1-50 of human dNp73. Mouse and human sequences are more than 95 % identical at these amino acid residues. In mouse, alanine at position 8 is replaced by methionine.
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, Chromatin Immunoprecipitation (ChIP)
Recommended Dilutions	Western Blot 1-3 ug/ml, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:20-1:1000, Immunoprecipitation reported in scientific literature (PMID 19625514), Immunohistochemistry-Paraffin 5 ug/ml, Immunohistochemistry-Frozen 1:20-1:1000, Chromatin Immunoprecipitation (ChIP)
Application Notes	Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10 mM sodium citrate buffer, pH 6.0 for 10-20 min followed by cooling at RT for 20 min.

**Images**

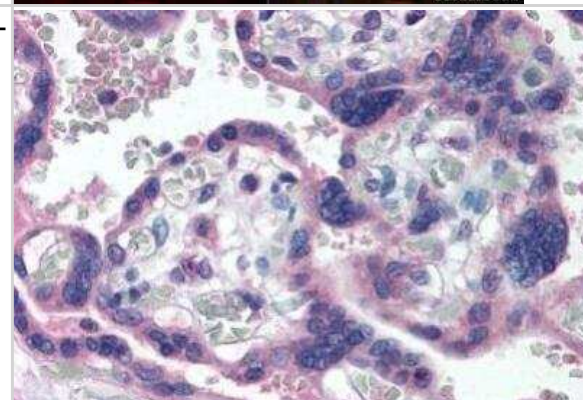
Western Blot: Delta Np73 Antibody (38C674.2) [NBP2-24873] - Delta Np73 Antibody (38C674.2) analysis for Np73 using NBP2-24873 at 1 ug/ml in A) a cell line transfected with Np73 cDNA, B) HeLa, and C) NIH 3T3 cell lysate.



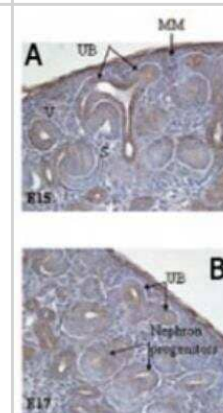
**Immunocytochemistry/Immunofluorescence:** Delta Np73 Antibody (38C674.2) [NBP2-24873] - HeLa cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton-X100. The cells were incubated with anti-Delta Np73 (38C674.2) NBP2-24873 at a 1:50 dilution overnight at 4C and detected with an anti-mouse Dylight 488 (Green) at a 1:500 dilution. Actin was counterstained with Phalloidin 568 (Red) at a 1:200 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



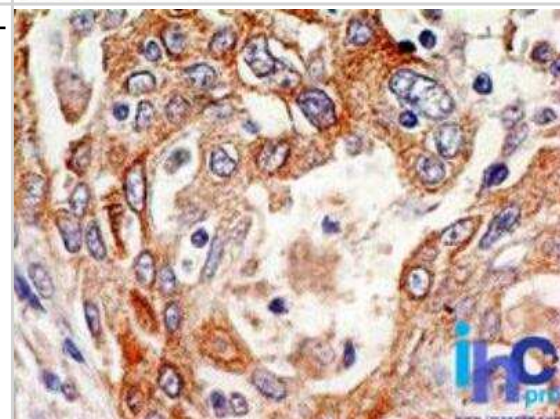
**Immunohistochemistry-Paraffin:** Delta Np73 Antibody (38C674.2) [NBP2-24873] - Delta Np73 Antibody (38C674.2) Staining of human placenta. Immunohistochemistry of formalin-fixed, paraffin-embedded tissue after heat-induced antigen retrieval. Antibody concentration 5 ug/ml.



**Immunohistochemistry-Frozen:** Delta Np73 Antibody (38C674.2) [NBP2-24873] - Delta Np73 Antibody (38C674.2) analysis of Delta Np73 in embryonic day 15 (A) and day 17 (B) E15 rat embryonic kidney at 1:2000. Delta Np73 is expressed in ureteric bud (UB) branches, and metanephrogenic mesenchyme (MM), as well as in cells invading the glomerular cleft. DeltaNp73 is expressed in the ureteric bud (UB) branches, metanephrogenic mesenchyme (MM), and nephron progenitors.



**Immunohistochemistry-Paraffin:** Delta Np73 Antibody (38C674.2) [NBP2-24873] - Delta Np73 Antibody (38C674.2) Formalin-fixed, paraffin-embedded lung squamous cell carcinoma probed with p73 antibody at 5 ug/ml.



## Publications

Zhao L, Hsiao T, Stonesifer C et al. The Robust Tumoricidal Effects of Combined BET/HDAC Inhibition in CTCL Can Be Reproduced by delta Np73 Depletion The Journal of investigative dermatology 2022-07-01 [PMID: 35787399] (Human)

Malik N, Yan H, Yang HH et al. CBFB cooperates with p53 to maintain TAp73 expression and suppress breast cancer PLoS genetics 2021-05-01 [PMID: 33945523] (WB, Human)

Guo J, Jia R Overexpression of splicing factor poly (rC)-binding assets.researchsquare.com 2020-01-01 [PMID: 30132844] (WB, Human)

Pham T Fuzzy Recurrence Plots and Networks with Applications in Biomedicine Fuzzy Recurrence Plots and Networks with Applications in Biomedicine 2020-01-08 (IF/IHC)

Pham TD, Fan C, Pfeifer D et al. Image-Based Network Analysis of DNp73 Expression by Immunohistochemistry in Rectal Cancer Patients Front Physiol 2019-01-08 [PMID: 31969833] (IF/IHC, Human)

Rastogi S, Rizwani W, Joshi B et al. TNF-alpha response of vascular endothelial and vascular smooth muscle cells involve differential utilization of ASK1 kinase and p73. Cell Death Differ. 2012-02-01 [PMID: 21738216] (WB, Human)

### Details:

See Figure 4 where this antibody, Delta Np73 Antibody (38C674.2), was used in WB with HAEC

Gonzalez R, De la Rosa AJ, Rufini A et al. Role of p63 and p73 isoforms on the cell death in patients with hepatocellular carcinoma submitted to orthotopic liver transplantation. PLoS ONE. 2017-03-28 [PMID: 28350813] (ICC/IF, Human)

Morandi EM, Verstappen R, Zwierzina ME et al. ITGAV and ITGA5 diversely regulate proliferation and adipogenic differentiation of human adipose derived stem cells Sci Rep 2016-07-01 [PMID: 27363302] (WB, Human)

Prabhu VV, Hong B, Allen JE et al. Small molecule prodigiosin restores p53 tumor suppressor activity in chemoresistant colorectal cancer stem cells via c-Jun-mediated deltaNp73 inhibition and p73 activation. Cancer Res. 2016-01-12 [PMID: 26759239] (WB, Human)

Leonard M K, Kommagani R, Payal V et al. DeltaNp63alpha regulates keratinocyte proliferation by controlling PTEN expression and localization. Cell Death Differ. 2011-12-01 [PMID: 21637289]

Sari Youssef, Smith Kathryn D, Ali Pir K, Rebec George V. Upregulation of GLT1 attenuates cue-induced reinstatement of cocaine-seeking behavior in rats. J Neurosci. 2009 Jul 22 [PMID: 19625514] (IP)

Rosenbluth Jennifer M, Mays Deborah J, Pino Maria F et al. A gene signature-based approach identifies mTOR as a regulator of p73. Mol Cell Biol. 2008-10-01 [PMID: 18678646] (Human)

More publications at <http://www.novusbio.com/NBP2-24873>



## Procedures

### Western Blot Protocol for Delta Np73 Antibody (NBP2-24873)

#### Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 10-25 ug of total protein per lane.
2. Transfer proteins to PVDF membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain the membrane with Ponceau S (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot TBS -0.05% Tween 20 (TBST).
5. Block the membrane in 5% Non-fat milk in TBST (blocking buffer) for at least 1 hour.
6. Wash the membrane in TBST three times for 10 minutes each.
7. Dilute primary antibody in blocking buffer and incubate overnight at 4C with gentle rocking.
8. Wash the membrane in TBST three times for 10 minutes each.
9. Incubate the membrane in diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturer's instructions) for 1 hour at room temperature.
10. Wash the blot in TBST three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturer's instructions.

### Immunohistochemistry-Paraffin Protocol for Delta Np73 Antibody (NBP2-24873)

#### Immunohistochemistry-Paraffin Embedded Sections

##### Antigen Unmasking:

Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes (keep slides in the sodium citrate buffer at all times).

##### Staining:

1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in PBS for 5 minutes.
3. Block each section with 100-400 ul blocking solution (1% BSA in PBS) for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4 C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul HRP polymer conjugated secondary antibody. Incubate 30 minutes at room temperature.
7. Wash sections three times in wash buffer for 5 minutes each.
8. Add 100-400 ul DAB substrate to each section and monitor staining closely.
9. As soon as the sections develop, immerse slides in deionized water.
10. Counterstain sections in hematoxylin.
11. Wash sections in deionized water two times for 5 minutes each.
12. Dehydrate sections.
13. Mount coverslips.



**Immunocytochemistry/ Immunofluorescence Protocol for Delta Np73 Antibody (NBP2-24873)****Immunocytochemistry Protocol**

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and wash the cells briefly in PBS. Add 10% formalin to the dish and fix at room temperature for 10 minutes.
2. Remove the formalin and wash the cells in PBS.
3. Permeablize the cells with 0.1% Triton X100 or other suitable detergent for 10 min.
4. Remove the permeablization buffer and wash three times for 10 minutes each in PBS. Be sure to not let the specimen dry out.
5. To block nonspecific antibody binding, incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
6. Add primary antibody at appropriate dilution and incubate overnight at 4C.
7. Remove primary antibody and replace with PBS. Wash three times for 10 minutes each.
8. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
9. Remove secondary antibody and replace with PBS. Wash three times for 10 minutes each.
10. Counter stain DNA with DAPI if required.







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### **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.

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