Product Datasheet

XBP1 Antibody - BSA Free
NBP1-77681

Unit Size: 0.1 ml

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

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Publications: 18

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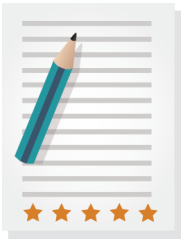
Updated 10/23/2024 v.20.1



NBP1-77681

XBP1 Antibody - BSA Free

Product Information

Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS

Product Description

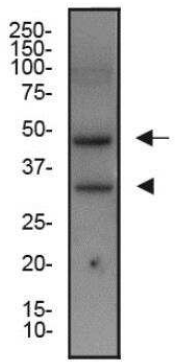
Host	Rabbit
Gene ID	7494
Gene Symbol	XBP1
Species	Human, Mouse
Specificity/Sensitivity	This antibody is specific for both XBP1s and XBP1u.
Immunogen	A genomic peptide made to an internal region of the human XBP1 protein (within residues 100-250). [Swiss-Prot P17861]
Notes	Manufactured by Genomic Antibody Technology™. GAT FAQs

Product Application Details

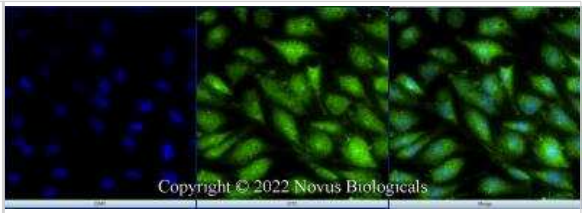
Applications	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Knockdown Validated
Recommended Dilutions	Western Blot 1 ug/mL, Flow Cytometry reported in scientific literature (PMID 31031094), Immunohistochemistry 1:100, Immunocytochemistry/ Immunofluorescence 1:100, Immunohistochemistry-Paraffin 1:100, Knockdown Validated reported in scientific literature (PMID 33513694)
Application Notes	Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended.

Images

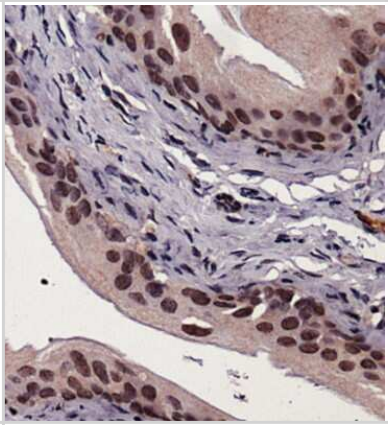
Western Blot: XBP1 Antibody [NBP1-77681] - Total protein from HeLa cells was separated on a 12% gel by SDS-PAGE, transferred to PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 1.0 ug/ml anti-XBP1 in block buffer and detected with an anti-rabbit HRP secondary antibody using chemiluminescence. Arrow delineates XBP1s and arrowhead XBP1u.



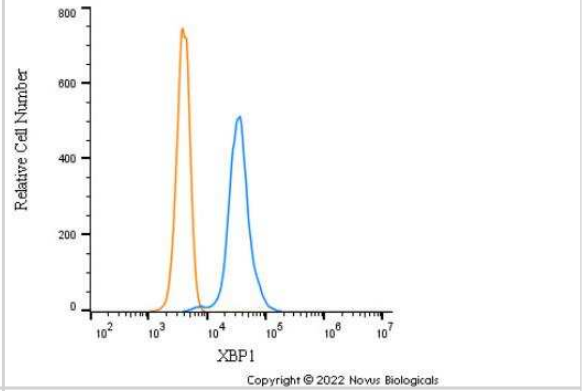
Immunocytochemistry/Immunofluorescence: XBP1 Antibody [NBP1-77681] - Mouse MS1 cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.05% Triton X-100 in PBS for 5 minutes. The cells were incubated with XBP1 Antibody (NBP1-77681) at 1 ug/ml overnight at 4C and detected with an anti-rabbit DyLight 488 (Green) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



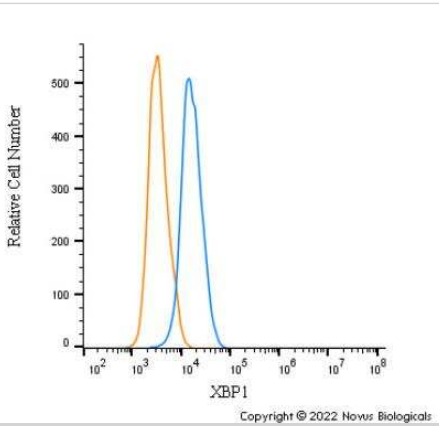
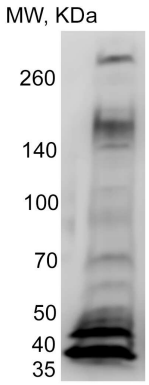
Immunohistochemistry: XBP1 Antibody [NBP1-77681] - Staining of XBP1 in mouse bladder using DAB with hematoxylin counterstain.



Flow Cytometry: XBP1 Antibody [NBP1-77681] - An intracellular stain was performed on NIH3T3 cells with XBP1 Antibody NBP1-77681 (blue) and a matched isotype control NBP2-24891 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (SA5-10033, Thermo Fisher).



Immunocytochemistry/Immunofluorescence: XBP1 Antibody [NBP1-77681] - HeLa cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.05% Triton X-100 in PBS for 5 minutes. The cells were incubated with XBP1 Antibody (NBP1-77681) at 1 ug/ml overnight at 4C and detected with an anti-rabbit DyLight 488 (Green) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.

Flow Cytometry: XBP1 Antibody [NBP1-77681] - An intracellular stain was performed on HepG2 cells with XBP1 Antibody NBP1-77681 (blue) and a matched isotype control NBP2-24891 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (SA5-10033, Thermo Fisher).	
Western Blot: XBP1 Antibody [NBP1-77681] - Western Blot of PC-3 cell lysate. Image from verified customer review.	

Publications

Luis O Correa-Medero, Shayna E Jankowski, Hanna S Hong, Nicholas D Armas, Aditi I Vijendra, Mack B Reynolds, Garrett M Fogo, Dominik Awad, Alexander T Dils, Kantaro A Inoki, Reid G Williams, Annabelle M Ye, Nadezhda Svezhova, Francisco Gomez-Rivera, Kathleen L Collins, Mary X O'Riordan, Thomas H Sanderson, Costas A Lyssiotis, Shannon A Carty ER-associated degradation adapter Sel1L is required for CD8 + T cell function and memory formation following acute viral infection. Cell reports 2024-04-29 [PMID: 38687642]

Nancy Ahuja, Shalini Gupta, Rashmi Arora, Ella Bhagyaraj, Drishti Tiwari, Sumit Kumar, Pawan Gupta Nr1h4 and Thrb ameliorate ER stress and provide protection in the MPTP mouse model of Parkinson's Life Science Alliance 2024-04-12 [PMID: 38609183]

Pauline de Zeeuw, Lucas Treps, Melissa García-Caballero, Ulrike Harjes, Joanna Kalucka, Carla De Legher, Katleen Brepoels, Kristel Peeters, Stefan Vinckier, Joris Souffreau, Ann Bouché, Federico Taverna, Jonas Dehairs, Ali Talebi, Bart Ghesquière, Johan Swinnen, Luc Schoonjans, Guy Eelen, Mieke Dewerchin, Peter Carmeliet The gluconeogenesis enzyme PCK2 has a non-enzymatic role in proteostasis in endothelial cells Communications Biology 2024-05-23 [PMID: 38783087]

Denolly S, Guo H, Martens M et al. Dengue virus NS1 secretion is regulated via importin-subunit ?1 controlling expression of the chaperone GRp78 and targeted by the clinical drug ivermectin mBio 2023-09-13 [PMID: 37702492]

Stein D, Slobodnik Z, Tam B et al. 4-phenylbutyric acid-Identity crisis; can it act as a translation inhibitor? Aging Cell 2022-12-01 [PMID: 36373957]

Gebert M, Sobolewska A, Bartoszewska S et al. Genome-wide mRNA profiling identifies X-box-binding protein 1 (XBP1) as an IRE1 and PUMA repressor Cellular and Molecular Life Sciences 2021-11-01 [PMID: 34636989] (Western Blot)

Navas-Madro□al M, Almendra-Pegueros R, Puertas-Umbert L et al. Targeting mitochondrial stress with SS31 prevents experimental abdominal aortic aneurysm: crosstalk with ER stress British journal of pharmacology 2023-03-25 [PMID: 36964990] (WB, Mouse)

Espina M, Di Franco N, Brañas-Navarro M et al. The GRP78-PERK axis contributes to memory and synaptic impairments in Huntington's disease R6/1 mice Neurobiology of disease 2023-07-11 [PMID: 37442396] (WB, Mouse)

Details:
Dilution: 1:1000

Lombardi S, Goldman AR, Tang HY et al. Targeting Fatty Acid Reprogramming Suppresses CARM1-expressing Ovarian Cancer Cancer research communications 2023-06-01 [PMID: 37377614] (ChIP, Human)

Pandit M, Kil YS, Ahn JH et al. Methionine consumption by cancer cells drives a progressive upregulation of PD-1 expression in CD4 T cells Nature communications 2023-05-05 [PMID: 37147330] (Western Blot, Mouse)

Details:
WB 1:1000

Lin J, Liu H, Fukumoto T et al. Targeting the IRE1 alpha /XBP1s pathway suppresses CARM1-expressing ovarian cancer Nature communications 2021-09-07 [PMID: 34493732] (WB, Human)

Al-Yacoub N, Colak D, Mahmoud Sa Et Al. Mutation in FBXO32 causes dilated cardiomyopathy through up-regulation of ER-stress mediated apoptosis Communications biology 2021-07-16 [PMID: 34272480]

More publications at http://www.novusbio.com/NBP1-77681

Procedures

Immunohistochemistry-Paraffin protocol for XBP1 Antibody (NBP1-77681)
XBP1 Antibody:
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.

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

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.

Immunocytochemistry/Immunofluorescence protocol for XBP1 Antibody (NBP1-77681)
XBP1 Antibody:
Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.
1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,0000 and incubate for 10 minutes. Wash a third time for 10 minutes.
9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

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Products Related to NBP1-77681

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP1-77681B	XBP1 Antibody [Biotin]

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