## **Product Datasheet**

# ATF6 Antibody - BSA Free NBP1-75478

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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## NBP1-75478

ATF6 Antibody - BSA Free

| <b>Product Information</b> |  |
|----------------------------|--|
| 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               | 0.02% Sodium Azide   |
| Isotype                    | IgG  |
| Purity                     | Immunogen affinity purified  |
| Buffer                     | PBS  |
| <b>Product Description</b> |  |
| Host                       | Rabbit   |
| Gene ID                    | 22926  |
| Gene Symbol                | ATF6   |
| Species                    | Human, Mouse   |
| Reactivity Notes           | Mouse reactivity reported in scientific literature (PMID: 31235574).                   |
| Immunogen                  | A partial recombinant protein made to an internal region of the human ATF6             |

| Product Application Details |  |
|-----------------------------|--|
| Applications                | Western Blot, Simple Western, Immunocytochemistry/ Immunofluorescence  |
| Recommended Dilutions       | Western Blot 1:100-1:2000, Simple Western 1:25, Immunocytochemistry/<br>Immunofluorescence 1:100   |
| Application Notes           | This ATF6 antibody is useful for Immunocytochemistry/Immunofluorescence.  In Simple Western only 10 - 15 uL of the recommended dilution is used per data point.  See Simple Western Antibody Database for Simple Western validation: Tested in HeLa lysate 1.0 mg/mL, separated by Size, antibody dilution of 1:25, apparent MW was 101 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue. |

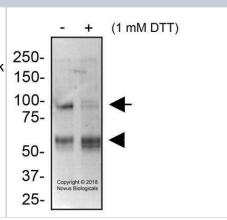
protein (within residues 200-350). [Swiss-Prot P18850]

Manufactured by Genomic Antibody Technology™. GAT FAQs

## **Images**

Notes

Western Blot: ATF6 Antibody [NBP1-75478] - Total protein from HeLa cells treated with and without 1 mM DTT for 24 hours was separated on a 7.5% gel by SDS-PAGE, transferred to PVDF membrane and blocked in 1% BSA. The membrane was probed with 2.0 ug/ml anti-ATF6 in block buffer and detected with an anti-rabbit HRP secondary antibody using chemiluminescence. Note the decrease in full length ATF6 (90 kDa, arrow) and increase in cleaved ATF6 (55 kDa, arrowhead) upon DTT treatment and the activation of the unfolded protein response pathway.





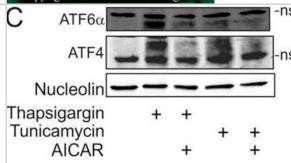
Simple Western: ATF6 Antibody [NBP1-75478] - Simple Western lane view shows a specific band for ATF6 in 1.0 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230kDa separation system.



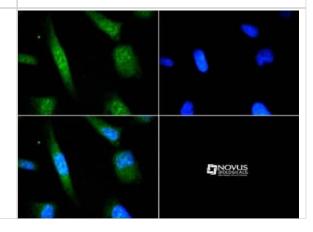
Immunocytochemistry/Immunofluorescence: ATF6 Antibody [NBP1-75478] - HeLa cells were fixed and permeabilized for 10 minutes using -20C MeOH. The cells were incubated with anti-ATF6 at 10 ug/ml overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Western Blot: ATF6 Antibody - BSA Free [NBP1-75478] - AICAR inhibits ER stress responses. Western analysis of cell lysates of nuclear extracts. AMPK-independent inhibition of human macrophage ER stress response by AICAR. Image collected and cropped by CiteAb from the following publication (//pubmed.ncbi.nlm.nih.gov/27562249/) licensed under a CC-BY license.



Immunocytochemistry/Immunofluorescence: ATF6 Antibody [NBP1-75478] - Antibody was tested in HeLa cells with FITC (green). Nuclei were counterstained with Dapi (blue).



#### **Publications**

Xu F, Wang L., et Al. Deciphering ER stress-unfolded protein response relationship by visualizing unfolded proteins in the ER Cell Rep 2024-07-01 [PMID: 38865243]

Thu Nguyen Minh Pham, Natarajan Perumal, Caroline Manicam, Marion Basoglu, Stefan Eimer, Dominik C. Fuhrmann, Claus U. Pietrzik, Albrecht M. Clement, Hagen Körschgen, Jana Schepers, Christian Behl Adaptive responses of neuronal cells to chronic endoplasmic reticulum (ER) stress Redox Biology 2023-10-20 [PMID: 37883843]

Li T, Zhao H, Guo G et al. VMP1 affects endoplasmic reticulum stress sensitivity via differential modulation of the three unfolded protein response arms Cell reports 2023-03-28 [PMID: 36870060] (Western Blot, Human)

Tabbarah S, Tavares E, Charish J et al. COG5 variants lead to complex early onset retinal degeneration, upregulation of PERK and DNA damage Scientific reports 2020-12-04 [PMID: 33277529] (WB, Human, Mouse)

Park SJ, Kim Y, Yang SM et al. Discovery of endoplasmic reticulum calcium stabilizers to rescue ER-stressed podocytes in nephrotic syndrome Proc. Natl. Acad. Sci. U.S.A. 2019-06-24 [PMID: 31235574] (WB, Mouse)

Bob M, Newbatt Y, Gupta S et al. AMPK-independent inhibition of human macrophage ER stress response by AICAR. Sci Rep. 2016-08-26 [PMID: 27562249] (WB, Human)



#### **Procedures**

## Serum protocol for ATF6 Antibody (NBP1-75478)

ATF6 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.
- \*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.





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## **Products Related to NBP1-75478**

NBP3-11854 HeLa DTT Treated / Untreated Cell Lysate

HAF008 Goat anti-Rabbit IgG Secondary Antibody [HRP]

NB7160 Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]

NBP2-24891 Rabbit IgG Isotype Control

### 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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