

Product Datasheet

ERR alpha/NR3B1 Antibody - BSA Free NBP1-47254

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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NBP1-47254

ERR alpha/NR3B1 Antibody - BSA Free

| Product Information | |
|-----------------------------|--|
| Unit Size | 0.1 ml |
| Concentration | 1 mg/ml |
| Storage | Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles. |
| Clonality | Polyclonal |
| Preservative | 0.1% Sodium Azide |
| Isotype | IgG |
| Purity | Immunogen affinity purified |
| Buffer | PBS and 30% Glycerol |
| Target Molecular Weight | 50 kDa |
| Product Description | |
| Host | Rabbit |
| Gene ID | 2101 |
| Gene Symbol | ESRRA |
| Species | Human, Mouse |
| Reactivity Notes | Predicted to react with rat, pig and dog based on 100% sequence homology. |
| Immunogen | Synthetic peptide made to an N-terminal portion of human Estrogen Related Receptor alpha (within residues 1-50). [Swiss-Prot# P11474] |
| Product Application Details | |
| Applications | Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin |
| Recommended Dilutions | Western Blot 2 ug/ml, Immunohistochemistry 2 ug/ml, Immunocytochemistry/ Immunofluorescence 1:100, Immunohistochemistry-Paraffin 2 ug/ml |
| Application Notes | This Estrogen Related Receptor alpha antibody is useful for Western Blot, Immunohistochemistry-Paraffin and Immunocytochemistry/Immunofluorescence applications. ERR alpha/ ESRRA localize mainly to the nucleus, but there are reports on its cytoplasmic presence also, especially in cells with high nuclear expression. In a feedback loop mechanism, it has been shown that ERK8 /MAPK15 interacts with ERR alpha to induce its CRM1-dependent translocation to cytoplasm for inhibiting its transcriptional activity via regulation of its cellular localization (PMIDs 21190936, 18070081). The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors. |

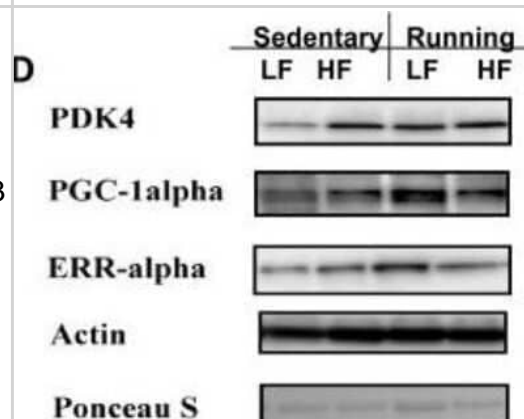


Images

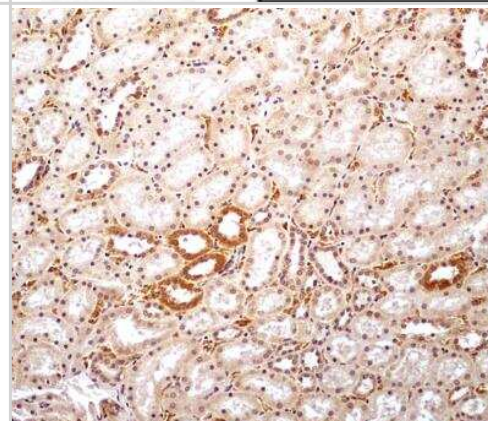
Immunocytochemistry/Immunofluorescence: ERR alpha/NR3B1 Antibody [NBP1-47254] - HeLa cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.5% Triton X-100 in PBS for 5 minutes. The cells were incubated with conjugated to DyLight 488 (NBP1-47254G) at 5 ug/ml for 1 hour at room temperature. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



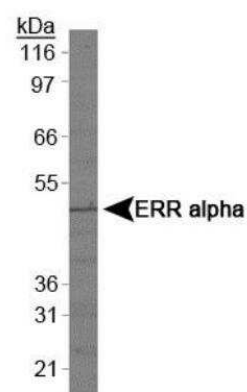
Western Blot: ERR alpha/NR3B1 Antibody [NBP1-47254] - The protein expression levels in QF muscle. Representative Western blot images. n = 14-15 animals/group. *=vs. LFsed (P <0.05), NS = non-significant (P>0.1). Black bars = sedentary, grey bars = running. Image collected and cropped by CiteAb from the following publication (<https://nutritionandmetabolism.biomedcentral.com/articles/10.1186/1743-7075-9-53>), licensed under a CC-BY license.



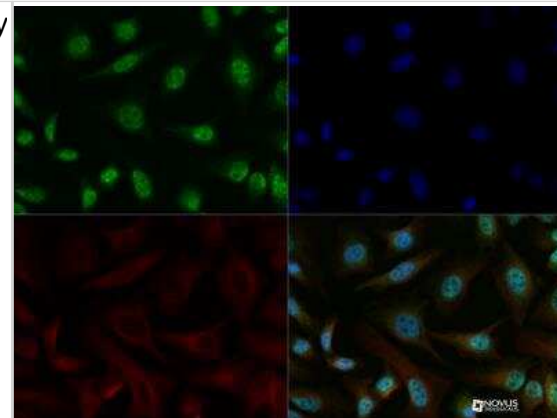
Immunohistochemistry-Paraffin: ERR alpha/NR3B1 Antibody [NBP1-47254] - IHC-P detection of ERR alpha/ESRRA protein in a section of normal human kidney using 5 ug/ml concentration of Estrogen Related Receptor alpha antibody. Some cells of tubules/ducts in the tested renal tissue depicted intense nuclear staining with an overall weak/diffused cytoplasmic staining. (10X Magnification)



Western Blot: ERR alpha/NR3B1 Antibody [NBP1-47254] - Analysis of ERR alpha in A431 cell lysates



Immunocytochemistry/Immunofluorescence: ERR alpha/NR3B1 Antibody [NBP1-47254] - ERR alpha antibody was tested in HeLa cells at a 1:100 dilution against Dylight 488 (Green). Alpha tubulin and nuclei were counterstained against Dylight 568 (Red) and DAPI (Blue), respectively.



Immunohistochemistry-Paraffin: ERR alpha/NR3B1 Antibody [NBP1-47254] - IHC-P detection of ERR alpha / ESRRα protein in a section of normal skin of human using 5 ug/ml concentration of Estrogen Related Receptor alpha antibody. The different cell types in the cellular epidermis as well as the blood vessels in the dermal layer showed positivity for ERR alpha, and the staining was found to be more intense in the nuclei compared to cytoplasm. (10X Magnification)



Publications

Kim M, Kim J, Moon S et al. Korean Red Ginseng Improves Astrocytic Mitochondrial Function by Upregulating HO-1-Mediated AMPK α -PGC-1 α -ERR α Circuit after Traumatic Brain Injury International journal of molecular sciences 2021-12-03 [PMID: 34884886] (WB, Human, Mouse)

Wang L, Yang M, Jin H PI3K/AKT phosphorylation activates ERR α by upregulating PGC-1 α and PGC-1 β in gallbladder cancer Molecular medicine reports 2021-08-01 [PMID: 34184087] (WB)

Hauck L, Stanley-Hasnain S, Fung A et al. Cardiac-specific ablation of the E3 ubiquitin ligase Mdm2 leads to oxidative stress, broad mitochondrial deficiency and early death PLoS ONE 2017-12-21 [PMID: 29267372] (WB, Mouse)

Mak TW, Hauck L, Grothe D, Billia F. p53 regulates the cardiac transcriptome. Proc. Natl. Acad. Sci. U.S.A. 2017-02-28 [PMID: 28193895]

Hwang J, Purdy JG, Wu K et al. Estrogen-related receptor α is required for efficient human cytomegalovirus replication. Proc. Natl. Acad. Sci. U.S.A. 2014-12-30 [PMID: 25512541] (WB, Human)

Silvennoinen M, Rinnankoski-Tuikka R et al. High-fat feeding induces angiogenesis in skeletal muscle and activates angiogenic pathways in capillaries Angiogenesis 2012-10-23 [PMID: 23090645] (WB, Human)

Rinnankoski-Tuikka R, Silvennoinen M, Torvinen S et al. Effects of high-fat diet and physical activity on pyruvate dehydrogenase kinase-4 in mouse skeletal muscle Nutr Metab (Lond) 2012-06-09 [PMID: 22682013] (WB, Mouse)

Procedures

Protocol specific for ERR alpha Antibody (NBP1-45282)

ERR alpha/NR3B1 Antibody:

Western Blot Protocol

1. Perform SDS-PAGE (4-12% MOPS) on samples to be analyzed, loading 35 ug of total protein per lane.
2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.
3. Rinse membrane with dH₂O and then stain the blot using Ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.
4. Rinse the blot in TBS for approximately 5 minutes.
5. Block the membrane using 5% NFD_M + 1% BSA in TBS + Tween, 1 hour at RT.
6. Rinse the membrane in dH₂O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
7. Dilute the rabbit anti-ERR alpha primary antibody (NBP1-45282) in blocking buffer and incubate 1 hour at room temperature.
8. Rinse the membrane in dH₂O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
9. Apply the diluted rabbit-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer [TBS + 0.1% Tween] 3 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 manufacturers instructions (Pierce ECL).

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.





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Products Related to NBP1-47254

| | |
|---------------|---|
| NB800-PC1 | HeLa Whole Cell Lysate |
| NBP1-47254PEP | ERR alpha/NR3B1 Antibody Blocking Peptide |
| 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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