

Datasheet for ABIN5693179
anti-ESRRG antibody (AA 302-458)

3 Images

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Overview

Quantity:	100 µg
Target:	ESRRG
Binding Specificity:	AA 302-458
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC)

Product Details

Brand:	Picoband™
Immunogen:	E. coli-derived human ESRRG recombinant protein (Position: Q302-V458).
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for ESRRG detection. Tested with WB, IHC-P, Direct ELISA in Human, Mouse, Rat.

Target Details

Target:	ESRRG
Alternative Name:	ESRRG (ESRRG Products)
Background:	Synonyms: Estrogen-related receptor gamma, ERR gamma-2, Estrogen receptor-related protein 3, Nuclear receptor subfamily 3 group B member 3, ESRRG, ERR3, ERRG2, KIAA0832, NR3B3 Tissue Specificity: Expressed in the heart, kidney, brain, lung, bone marrow, adrenal gland,

Target Details

trachea, spinal cord and thyroid gland.

Background: Estrogen-related receptor gamma (ERR-gamma), also known as NR3B3, is a nuclear receptor that in humans is encoded by the ESRRG gene. This gene encodes a member of the estrogen receptor-related receptor (ESRR) family, which belongs to the nuclear hormone receptor superfamily. All members of the ESRR family share an almost identical DNA binding domain, which is composed of two C4-type zinc finger motifs. The ESRR members are orphan nuclear receptors, they bind to the estrogen response element and steroidogenic factor 1 response element, and activate genes controlled by both response elements in the absence of any ligands. The ESRR family is closely related to the estrogen receptor (ER) family. They share target genes, co-regulators and promoters, and by targeting the same set of genes, the ESRRs seem to interfere with the ER-mediated estrogen response in various ways. It has been reported that the family member encoded by this gene functions as a transcriptional activator of DNA cytosine-5-methyltransferases 1 (Dnmt1) expression by direct binding to its response elements in the DNMT1 promoters, modulates cell proliferation and estrogen signaling in breast cancer, and negatively regulates bone morphogenetic protein 2-induced osteoblast differentiation and bone formation. Multiple alternatively spliced transcript variants have been identified, which mainly differ at the 5' end and some of which encode protein isoforms differing in the N-terminal region.

UniProt: [P62508](#)

Pathways: [Nuclear Receptor Transcription Pathway](#), [Retinoic Acid Receptor Signaling Pathway](#), [Steroid Hormone Mediated Signaling Pathway](#)

Application Details

Application Notes: Recommended Detection Systems: Enhanced Chemiluminescent Kit with anti-Rabbit IgG (ABIN921124) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Application Details: Western blot, 0.1-0.5 µg/mL
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/mL
Direct ELISA, 0.1-0.5 µg/mL

Restrictions: For Research Use only

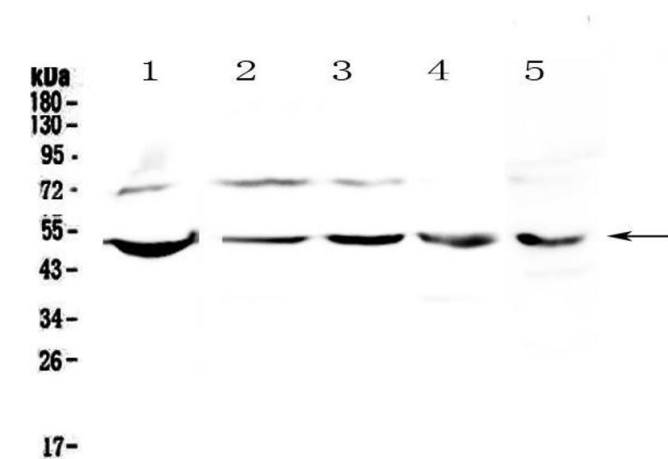
Handling

Format: Lyophilized

Handling

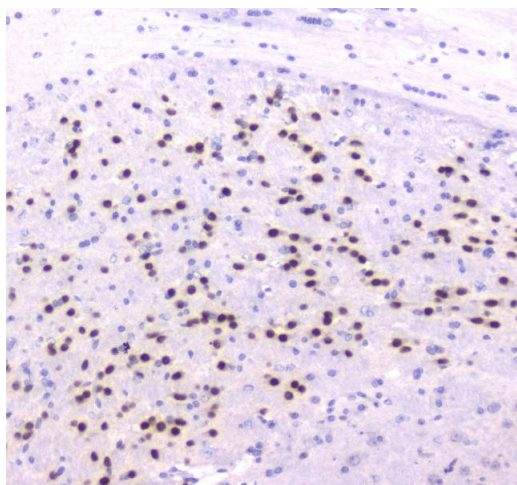
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , 0.05 mg NaN ₃ .
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C, -20 °C
Storage Comment:	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Images



Western Blotting

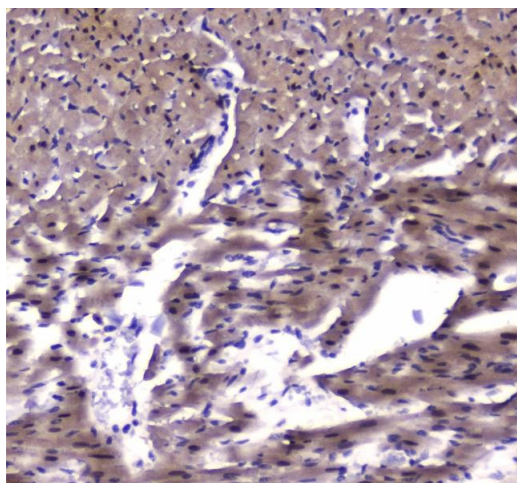
Image 1. Western blot analysis of ESRRG using anti-ESRRG antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50µg of sample under reducing conditions. Lane 1: human PANC-1 whole cell lysates, Lane 2: human 22RV1 whole cell lysates, Lane 3: human COLO-320 whole cell lysates, Lane 4: human SW620 whole cell lysates, Lane 5: mouse SP20 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ESRRG antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for ESRRG at



approximately 51KD. The expected band size for ESRRG is at 51KD.

Immunohistochemistry

Image 2. IHC analysis of ESRRG using anti-ESRRG antibody . ESRRG was detected in paraffin-embedded section of mouse brain tissue . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-ESRRG Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Immunohistochemistry

Image 3. IHC analysis of ESRRG using anti-ESRRG antibody . ESRRG was detected in paraffin-embedded section of rat cardiac muscle tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-ESRRG Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.