

Anti-Estrogen Receptor/ESR1 Antibody Picoband®

Catalog Number: PB9192

About ESR1

Estrogen receptor alpha (ER-alpha), also known as NR3A1, is one of two main types of estrogen receptor, a nuclear receptor that is activated by the sex hormone estrogen. Estrogen receptors are involved in pathological processes including breast cancer, endometrial cancer, and osteoporosis. In humans, ER-alpha is encoded by the gene ESR1 (Estrogen Receptor 1). It is mapped to 6q25.1. This gene is a ligand-activated transcription factor composed of several domains important for hormone binding, DNA binding, and activation of transcription. The protein localizes to the nucleus where it may form a homodimer or a heterodimer with estrogen receptor 2. Estrogen and its receptors are essential for sexual development and reproductive function, it also play a role in other tissues such as bone.

Overview

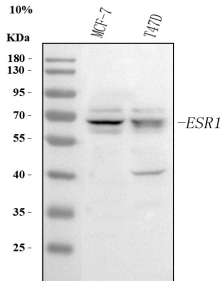
Product Name	Anti-Estrogen Receptor/ESR1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Estrogen Receptor/ESR1 Antibody Picoband® catalog # PB9192. Tested in IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , and 0.05 mg NaN ₃ . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P03372

Technical Details

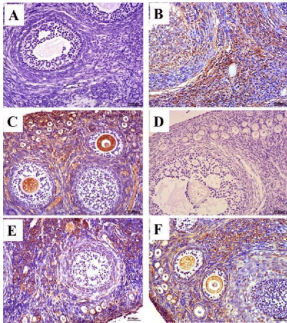
Immunogen	E.coli-derived human Estrogen Receptor recombinant protein (Position: F425-V595). Human Estrogen Receptor shares 89% and 88% amino acid (aa) sequences identity with mouse and rat Estrogen Receptor, respectively.
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Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Western blot, 0.1-0.5ug/ml, Human

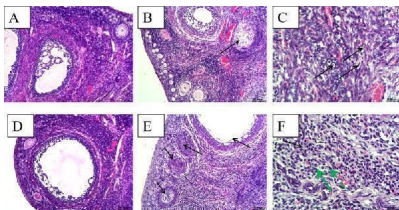
Anti-Estrogen Receptor/ESR1 Antibody Picoband® (PB9192) Images



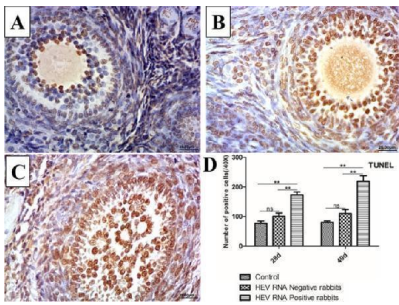
Western blot analysis of Estrogen Receptor using anti-Estrogen Receptor antibody (PB9192). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human MCF-7 whole cell lysates, Lane 2: human T-47D whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-Estrogen Receptor antigen affinity purified polyclonal antibody (Catalog # PB9192) at 0.5 ug/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 1:5000 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 Estrogen Receptor at approximately 66 kDa. The expected band size for Estrogen Receptor is at 66 kDa.



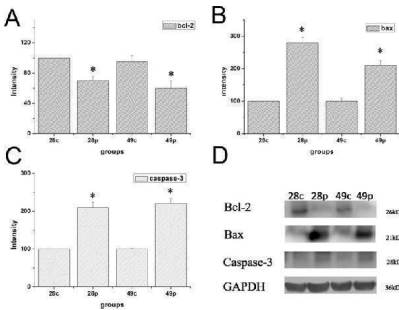
Immunohistochemical stain of HEV ORF2 and ORF3 antigen. (A - C) Expression of HEV ORF2 in ovarian tissues, no positive signals in ovaries from control group (A). The positive signals distribute in the sperm cell and ovum cytoplasm of HEV-positive ovarian section at 28 dpi (B) and 49 dpi (C). (D - E) Expression of HEV ORF3 in ovarian tissues, no positive signals in ovaries from control group (D). The positive signals distribute in the sperm cell and ovum cytoplasm of HEV-positive ovarian section at 28 dpi (E) and 49 dpi (F). (Magnification: 20×).Index in PubMed under a CC BY license. PMID: 29435117



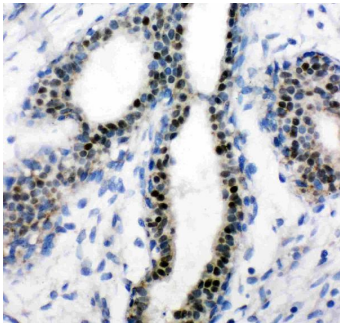
Histopathological analyze of ovaries. (A) and (D), There were no gross histopathological lesions in the ovarian section from the control group at 28 dpi and 49 dpi, respectively.(Magnification: 10×); (B) ovarian interstitial cell scattered necrosis (black arrow), a small amount of lymphocytic infiltration in part area of ovarian interstitial from HEV RNA positive rabbit at 28 dpi.(Magnification:10×); (C) Necrosis and scattered lymphocytic infiltration (black arrow) in part area of ovarian interstitial from HEV RNA positive rabbit at 28 dpi.(Magnification:40×); (D) high power field of the control group (Magnification:20×); (E) Large amounts of ovarian germ cell were necrosis (black arrow) and dropped off, an increase of ovarian atresia and lymphocytic infiltration in the ovarian interstitial from the HEV RNA positive rabbit at 48 dpi. (Magnification:10×); (F) Large amounts of lymphocytic infiltration (green arrow) in the ovarian interstitial from the HEV RNA positive rabbit. (Magnification:40×).Index in PubMed under a CC BY license. PMID: 29435117



Representative TUNEL-stained histological sections of ovaries from control group and Swine HEV inoculated rabbits. TUNEL-positive cells have brown nuclei. The number of TUNEL-positive cells were remarkably higher in HEV RNA positive ovaries at 28dpi (B) and 49dpi (C) than in the control (A). (magnification:40×). Quantitative analysis of TUNEL-positive cells in ovaries of rabbits (D). The data were expressed as the percentage (mean ± SD). (* P < 0.05) or (** P < 0.01), indicated statistical significance versus the control group (n = 5).Index in PubMed under a CC BY license. PMID: 29435117



Expression level of protein of Bcl-2, Bax and Caspase-3 in ovary tissue of different groups at 28 dpi and 49 dpi. (A) intensity of expression of Bcl-2 (B) Bax, (C) Caspase-3 in ovaries of HEV inoculation rabbits. (D) Western blot analysis of Bcl-2, Bax and Caspase-3 in ovaries in different groups.Index in PubMed under a CC BY license. PMID: 29435117



IHC analysis of Estrogen Receptor using anti-Estrogen Receptor antibody (PB9192). Estrogen Receptor was detected in a paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-Estrogen Receptor Antibody (PB9192) 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.

5 Publications Citing This Product

1. PubMed ID: 25864222, Effects of estradiol on liver estrogen receptor-? and its mRNA expression in hepatic fibrosis in rats
2. PubMed ID: 29435117, An J, Liu T, She R, Wu Q, Tian J, Shi R, Hao W, Ren X, Yang Y, Lu Y, Yang Y, Wu Y. Oncotarget. 2017 Dec 17;9(4):4475-4484. doi: 10.18632/oncotarget.23381. eCollection 2018 Jan 12. Replication of hepatitis E virus in the ovary and promotion of oocy...
3. PubMed ID: 22101081, Fu Y, Zhao Z, Wu Y, Wu K, Xu X, Liu Y, Tong C. J Ethnopharmacol. 2012 Jan 6;139(1):26-33. Doi: 10.1016/J.Jep.2011.08.077. Epub 2011 Nov 10. Therapeutic Mechanisms Of Tongmai Dasheng Tablet On Tripterygium Glycosides Induced Rat Model For Premature...

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