Product datasheet

Anti-Estrogen Receptor beta antibody ab3577

12 Abreviews  38 References  4 Images

Overview

Product name
Anti-Estrogen Receptor beta antibody

Description
Rabbit polyclonal to Estrogen Receptor beta

Host species
Rabbit

Specificity
By Western blot, this antibody detects an ~55 kDa protein representing ER beta from Rat brain homogenate. Immunohistochemical staining of ER beta in Rat cerebellum results in cytoplasmic staining in Purkinje neurons. This antibody sufficiently supershifts Rat ER beta / ER response element (vitellogenin xenopus A2 gene).

Tested applications
Suitable for: ICC/IF, EMSA, IHC-P, IHC-Fr, WB, ICC, ChIP, Flow Cyt, IP

Species reactivity
Reacts with: Mouse, Rat, Sheep, Hamster, Cow, Human, Pig, Non human primates, Baboon

Immunogen
Synthetic peptide corresponding to Rat Estrogen Receptor beta aa 55-70.
Sequence:
AEPQKSPWCEARSLEH

Positive control
WB: Rat brain lysate
IHC: Rat cerebellum, rat penis (see Jesmin et al), Ovine uterine artery endothelial cells (see Liao et al)
ICC: Human coronary artery smooth muscle cells (see Han et al)

Properties

Form
Liquid

Storage instructions
Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

Storage buffer
Preservative: 0.05% Sodium azide
Constituents: 0.1% BSA, 99% PBS

Purity
Immunogen affinity purified

Clonality
Polyclonal

Isotype
IgG

Applications
Our Abpromise guarantee covers the use of ab3577 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICC/IF</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use a concentration of 0.5 µg/ml.</td>
</tr>
<tr>
<td>EMSA</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 18790053</td>
</tr>
<tr>
<td>IHC-P</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use a concentration of 1 - 2 µg/ml.</td>
</tr>
<tr>
<td>IHC-Fr</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use a concentration of 1 - 2 µg/ml.</td>
</tr>
<tr>
<td>WB</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use a concentration of 1 - 2 µg/ml. Detects a band of approximately 55 kDa (predicted molecular weight: 59 kDa). Can be blocked with Human Estrogen Receptor beta peptide (ab3564).</td>
</tr>
<tr>
<td>ICC</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use a concentration of 2 - 4 µg/ml.</td>
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<tr>
<td>ChIP</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>Flow Cyt</td>
<td></td>
<td>Use at an assay dependent concentration. ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.</td>
</tr>
<tr>
<td>IP</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>EMSA</td>
<td></td>
<td>Use a concentration of 1 - 5 µg/ml.</td>
</tr>
</tbody>
</table>

**Target**

**Function**

Nuclear hormone receptor. Binds estrogens with an affinity similar to that of ESR1, and activates expression of reporter genes containing estrogen response elements (ERE) in an estrogen-dependent manner. Isoform beta-cx lacks ligand binding ability and has no or only very low estrogen binding activity resulting in the loss of ligand-dependent transactivation ability. DNA-binding by ESR1 and ESR2 is rapidly lost at 37 degrees Celsius in the absence of ligand while in the presence of 17 beta-estradiol and 4-hydroxy-tamoxifen loss in DNA-binding at elevated temperature is more gradual.

**Tissue specificity**

Isoform beta-1 is expressed in testis and ovary, and at a lower level in heart, brain, placenta, liver, skeletal muscle, spleen, thymus, prostate, colon, bone marrow, mammary gland and uterus. Also found in uterine bone, breast, and ovarian tumor cell lines, but not in colon and liver tumors. Isoform beta-2 is expressed in spleen, thymus, testis and ovary and at a lower level in skeletal muscle, prostate, colon, small intestine, leukocytes, bone marrow, mammary gland and uterus. Isoform beta-3 is found in testis. Isoform beta-4 is expressed in testis, and at a lower level in spleen, thymus, ovary, mammary gland and uterus. Isoform beta-5 is expressed in testis, placenta, skeletal muscle, spleen and leukocytes, and at a lower level in heart, lung, liver, kidney, pancreas, thymus, prostate, colon, small intestine, bone marrow, mammary gland and uterus. Not expressed in brain.

**Sequence similarities**

Belongs to the nuclear hormone receptor family. NR3 subfamily. Contains 1 nuclear receptor DNA-binding domain.

**Domain**

Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain.
**Cellular localization**

**Nucleus.**

**Images**

ab3577 staining Estrogen Receptor beta in human placental sac tissue sections by Immunohistochemistry (PFA perfusion fixed frozen sections). Tissue samples were fixed by perfusion with formaldehyde, cut into 20 micron slices, blocked with 2.5% serum for 30 minutes at 25°C and antigen retrieval was by heat mediation in citrate buffer. The sample was incubated with primary antibody (1/200 in PBS) at 25°C for 90 minutes. An undiluted HRP-conjugated horse polyclonal was used as the secondary antibody.

ab3577 labelling Estrogen Receptor beta by Immunocytochemistry/Immunofluorescence.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Estrogen Receptor beta antibody (ab3577)

ab3577 at a concentration of 1-2µg/ml staining ER beta in primate amygdala.

Western blot - Anti-Estrogen Receptor beta antibody (ab3577)

Red - ab3577 at a 1/100 dilution
Green - Actin loading control

All samples loaded as 20µl.


The secondary used was an IRDye700DX conjugated rabbit polyclonal used at a 1/10000 dilution.

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