abcam

ab205541

PE Anti-Estrogen Receptor beta antibody [ERb455]

Anti-Estrogen Receptor beta antibody [ERb455] conjugated to PE - suitable for flow cytometry, and reacts with human samples. Clone [ERb455] is a mouse monoclonal antibody.

Design your panel with our interactive flow cytometry panel builder. Click here.

Key facts

Isotype	IgG2a
Host species	Mouse
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.05% Sodium azide Constituents: PBS, 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human ESR2. The exact immunogen used to generate this antibody is proprietary information. Database link Q92731
Clone number	ERb455
Purification technique	Affinity purification Protein A/G
Concentration	0.2 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from Bioreactor concentrate.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	5 µL for 10^6 Cells
Notes	or 5 µL per 100 µL of whole blood

Target data

See full target information ESR2

Function	Nuclear hormone receptor. Binds estrogens with an affinity similar to that of ESR1/ER-alpha, and activates expression of reporter genes containing estrogen response elements (ERE) in an estrogen-dependent manner (PubMed:20074560). Isoform 2. Lacks ligand binding ability and has no or only very low ERE binding activity resulting in the loss of ligand-dependent transactivation ability.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Store in the dark

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Estrogen Receptor beta (ERβ) also known as ERbeta or beta receptor is an important nuclear receptor involved in mediating the effects of estrogens such as estradiol. This receptor with a molecular weight of approximately 59 kDa resides mainly in endothelial and epithelial tissues and can also be present in the central nervous system. ERβ possesses the ability to bind ligands and translocate to the nucleus where it regulates the transcription of specific target genes.
Biological function summary	Estrogen Receptor beta plays a significant role in cell growth regulation and differentiation. It often forms dimers with Estrogen Receptor alpha (ERα) contributing to the diversity of estrogen signaling responses. As part of the nuclear receptor family ERβ engages in binding with DNA at estrogen response elements influencing various physiological processes. The presence of ERβ in

	tissues implies it has a potentially protective role possibly balancing the actions of ERα.
Pathways	Estrogen Receptor beta plays an essential role in the estrogen signaling pathway and the apoptosis pathway. Interaction with ERα can influence pathways related to cell proliferation and survival contributing to distinct physiological outcomes. ERβ's involvement with proteins like the retinoic acid receptor within these pathways highlights its impact on controlling gene expression important for cell cycle regulation and programmed cell death.
Associated diseases and disorders	Estrogen Receptor beta has implications in cancers and cardiovascular diseases. In breast cancer ERβ may act differently from ERα possibly providing protective effects against tumor growth. Moreover the receptor's expression affects cardiovascular health by modulating inflammation and vascular function. ERβ interacts with proteins such as p53 hinting at its role in controlling cellular stress responses and combating oncogenesis.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

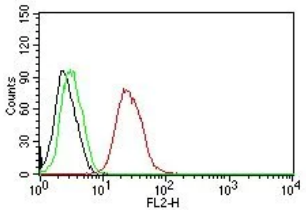
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

1 product image



Flow Cytometry - PE Anti-Estrogen Receptor beta antibody [ERb455] (ab205541)

Estrogen Receptor beta Flow Cytometry staining using mouse Anti-Estrogen Receptor beta antibody

Flow cytometry analysis of MCF-7 cells labeling Estrogen Receptor beta using ab205541 at 5 µL for 10^6 cells (Red). Black: Cells alone; Green: Isotype control.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.