



Anti-GPER1 Polyclonal Antibody

Alternative Names: G Protein-Coupled Receptor GPR30, G-protein coupled estrogen receptor 1, GPER1, CEPR, CMKRL2, DRY12, FEG-1, GPCR-Br, GPER, GPR30, LERGU, LERGU2, LyGPR, mER

Catalogue Number: AB18-10064-100ug

Size: 100 µg

Background Information

Anti-G protein-coupled estrogen receptor 1 (GPER1/GPR30) is a novel estrogenic receptor that binds to 17-beta-estradiol (E2) with high affinity, leading to rapid and transient activation of numerous intracellular signaling pathways. Different from traditional estrogen nuclear receptors, GPR30 exerts its biological effects through rapid non-genomic mechanisms [1].

GPR30 is involved in several physiopathological disorders and especially in estrogen-dependent diseases such as breast cancer and also has a role in cardioprotection by reducing cardiac hypertrophy and perivascular fibrosis in a RAMP3-dependent manner. It is highly expressed in the brain [2,3] and activation of GPR30 has neuroprotective effects on ischemic brain injury [4]. In Humans GPR30 is 375 amino acids in length, contains an N-terminal extracellular region (1-62), a series of seven TM domains (63-327), and a C-terminal cytoplasmic tail (328-375).

Product Information

Antibody Type:	Polyclonal	Host:	Rabbit
Isotype:	IgG	Species Reactivity:	Human, Mouse, Rat
Immunogen:	A synthetic peptide from the C-terminal region of human GPER1		
Format:	100 µg in 100 µl PBS with 0.03% Proclin300, 50% glycerol, pH7.3.		
Storage Conditions:	6 months: 4°C. Long-term storage: -20°C. Avoid multiple freeze and thaw cycles.		
Applications:	WWB 1:1000-3000.		

Additional Information

Subcellular location:	Basolateral cell membrane, Cell junction, Cell membrane, Cell projection, Cytoplasm, Cytoplasmic vesicle membrane, Early endosome, Endoplasmic reticulum membrane, Golgi apparatus, Golgi apparatus membrane, Mitochondrion membrane	MW:	42kDa (Intended as a general guide and does not allow for all isoforms and species variations)
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Gene ID	2852	Uniprot ID:	Q99527
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References

1. Prossnitz E.R., Barton M. The G-protein-coupled estrogen receptor GPER in health and disease. *Nat Rev Endocrinol.* 2011;7:715–726
2. Brailoiu E, Dun SL, Brailoiu GC, Mizuo K, Sklar LA, Oprea TI, et al. Distribution and characterization of estrogen receptor G protein-coupled receptor 30 in the rat central nervous system. *J Endocrinol.* 2007;193:311–321. doi: 10.1677/JOE-07-0017. [PubMed] [CrossRef]
3. Tang H, Zhang Q, Yang L, Dong Y, Khan M, Yang F, et al. GPR30 mediates estrogen rapid signaling and neuroprotection. *Mol Cell Endocrinol.* 2014;387:52–8. doi: 10.1016/j.mce.2014.01.024.
4. Kosaka Y., Quillinan N., Bond C. GPER1/GPR30 activation improves neuronal survival following global cerebral ischemia induced by cardiac arrest in mice. *Transl Stroke Res.* 2012;3:500–507.