Data Sheet (Cat.No.TMAB-01912)

Anti-TSHR (CT) Polyclonal Antibody

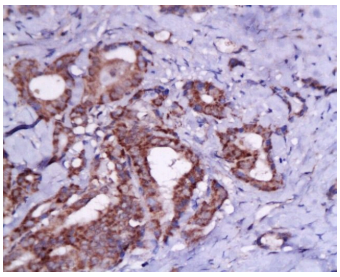
Product Details

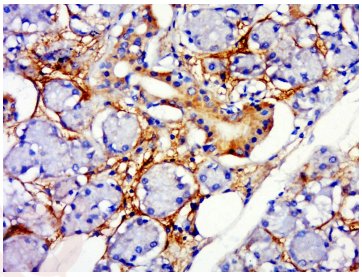
Ig Type:	IgG
Reactivity:	Human (predicted:Rat,Chicken,Pig,Cow,Horse,Rabbit,GuineaPig)
Molecular Weight:	Theoretical: 86 kDa. Actual: 130 kDa.
Purification:	Protein A purified

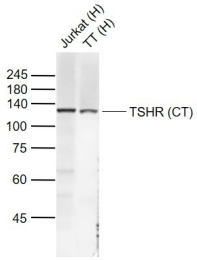
Applications

Verified Activity:

1. Tissue/cell: human thyroid carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH6.0), Boiling bathing for 15 min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30 min; Blocking buffer (normal goat serum) at 37°C for 20 min;
Incubation: Anti-TSHr (CT) Polyclonal Antibody, Unconjugated (TMAB-01912) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody and DAb staining.
2. Paraformaldehyde-fixed, paraffin embedded (human parotid gland); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (TSHR) Polyclonal Antibody, Unconjugated (TMAB-01912) at 1:500 overnight at 4°C, followed by a conjugated secondary for 20 min and DAB staining.
3. Sample:
Lane 1: Human Jurkat cell lysates
Lane 2: Human TT cell lysates
Primary: Anti-TSHR (CT) (TMAB-01912) at 1/2000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 86 kDa
Observed band size: 130 kDa







Application: IF,IHC-Fr,IHC-P,WB

Recommended: WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: KLH conjugated synthetic peptide: human TSHR

Antigen Species: Human

Gene ID: 7253

Uniprot ID: P16473

Synonyms: Thyrotropin receptor;LGR3;Thyroid-stimulating hormone receptor (TSH-R);TSHR

Biology Area: Thyroid axis,Hormones

Research Background

The glycoprotein hormone receptor family consists of the luteinizing hormone receptor, the follicle-stimulating hormone receptor, and the thyroid stimulating hormone(TSH) receptor. TSH, which is released from the pituitary gland, binds to the TSH receptor on thyroid cells to control size and function of the thyroid gland (De Felice et al. 2004). The TSH receptor signals through Gs to elevate intracellular cAMP in the thyroid gland, which regulates iodide uptake, and transcription of thyroglobulin (Tg), thyroid peroxidase (TPO), and sodium-iodide symporter. The TSH receptor also signals Gq and phospholipase C to regulat iodide efflux, H2O2 production, and thyroglobulin iodination. Autoimmunity to the TSH receptor causes hyperthyroidism (Graves disease) or hypothyroidism (Hashimoto thyroiditis) when the autoantibodies function as agonists or antagonists, respectively, at the TSH receptor (Rapoport and McLachlan, 2001; Davies et al., 2002). Millipore's cloned human TSH receptor-expressing cell line is made in the Chem-10 host, which supports high levels of recombinant TSH receptor expression on the cell surface and contains high levels of the promiscuous G protein to couple the receptor to the calcium signaling pathway. Thus, the cell line is an ideal tool for screening for antagonists of interactions between TSH and its ligands.

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