



Anti-Thyroid-stimulating hormone receptor (TSHR), Rabbit-Polyclonal Antibody

Catalog No. GB-30094
Antigen species: Human
Host species: Rabbit

Quantity: 100µg
Reactivity: Human
Form: Peptide affinity purified antibody

Applications: ELISA

Target description

The TSH receptor differs from the luteinizing hormone/choriogonadotropin receptor by the presence of 2 unique insertions of 8 and 50 amino acids in the extracellular domain. Wadsworth et al. (1990) showed that the 8-amino acid tract near the amino terminus of the TSH receptor is an important site of interaction with both TSH and autoantibodies against the TSH receptor (thyroid-stimulating immunoglobulins, TSI).

Antigen

This polyclonal antibody was raised by immunizing rabbit with a synthetic peptide located on the putative extracellular domain of human thyroid stimulating hormone receptor (TSHR).

Application

The antibody specificity was assayed by ELISA with the synthetic TSHR peptide antigen. The antibody titer is more than 100K for ELISA. It has not been tested in the other applications. However, for the first testing, we recommend 1/10,000 dilution for ELISA, 1/2,000 dilution for Western blot analysis(WB) of recombinant protein, 1/800 dilution for tissue extracts or cell lysates, 1/100 dilution for immunohistochemistry (IHC) staining on frozen cryosections, 1/50 dilution for IHC staining on paraffin embedded sections.

Related Products

1. Anti-guanine nucleotide binding protein (G protein), q polypeptide (GNAQ), pAb (GB-30070)
2. Anti-luteinizing hormone/choriogonadotropin receptor (LHCGR), pAb (GB-30071)
3. Anti-adrenergic, beta-1-, receptor (ADRB1) pAb (GB-30072)
4. Anti-adrenergic, beta-2-, receptor, surface (ADRB2) pAb (GB-30073)
5. Anti-angiotensin II receptor, type 1 (AGTR1) pAb (GB-30074).

Ab dilution	Pre-bleed	Purified-Ab
1:10,000	0.050	1.451
1:100,000	0.048	0.386
1:1,000,000	0.048	0.089
Titer		977K

ELISA Protocol

Antigen is coated on EIA strips at 1µg per well. Add 200µl of blocking buffer and then wash wells with PBST buffer. Antiserum or peptide specific purified antibody GB-30094 is diluted in series as $10^4 \sim 10^6$ folds and added in separate wells. Incubate antibody for 1hr. Wash unbound antibodies and add anti-rabbit IgG-HRP conjugate. Wash the plates and add substrate to develop color for 5 min. Read absorbance (ABS) at 650nm. Amount of color is directly proportional to the amount of antibodies. Antibody is positive at >2 folds of ABS of control/Pre-Immune serum.

Storage

It is supplied as peptide affinity purified antibody in lyophilized powder. Redissolve the powder with 100 microliter sterile water will restore to the original concentration 1mg/ml (1×PBS). Store at 4°C for short-term application. For long-term storage, aliquot and store at -20°C.

References

1. Wadsworth, H.L., Chazenbalk, G.D., Nagayama, Y., Russo, D., Rapoport, B. An insertion in the human thyrotropin receptor critical for high affinity hormone binding. *Science*. 249:1423-1425, 1990.

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