

TAAR3 (L-17): sc-324392

BACKGROUND

TAAR3 (putative trace amine-associated receptor 3), also known as TaR-3 (trace amine receptor 3) or GPR57 (G protein-coupled receptor 57), is a 343 amino acid multi-pass membrane protein that belongs to the G protein-coupled receptor 1 family. TAAR3 is considered an orphan receptor since its endogenous ligand is unknown. It is suggested that TAAR3 is not expressed in pons, thalamus, globus pallidus, caudate, putamen or cerebellum. The gene that encodes TAAR3 contains approximately 1,078 bases and maps to human chromosome 6p25. With 170 million base pairs, chromosome 6 comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

REFERENCES

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2. Lee, D.K., et al. 2000. Cloning and characterization of additional members of the G protein-coupled receptor family. *Biochim. Biophys. Acta* 1490: 311-323.
3. Vanti, W.B., et al. 2003. Discovery of a null mutation in a human trace amine receptor gene. *Genomics* 82: 531-536.
4. Cesari, R., et al. 2003. Parkin, a gene implicated in autosomal recessive juvenile parkinsonism, is a candidate tumor suppressor gene on chromosome 6q25-q27. *Proc. Natl. Acad. Sci. USA* 100: 5956-5961.
5. Lindemann, L., et al. 2005. Trace amine-associated receptors form structurally and functionally distinct subfamilies of novel G protein-coupled receptors. *Genomics* 85: 372-385.
6. Bläker, H., et al. 2008. Recurrent deletions at 6q in early age of onset non-HNPCC- and non-FAP-associated intestinal carcinomas. Evidence for a novel cancer susceptibility locus at 6q14-q22. *Genes Chromosomes Cancer* 47: 159-164.
7. Luttrell, L.M. 2008. Reviews in molecular biology and biotechnology: transmembrane signaling by G protein-coupled receptors. *Mol. Biotechnol.* 39: 239-264.
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CHROMOSOMAL LOCATION

Genetic locus: Taars (rat) mapping to 1q12.

SOURCE

TAAR3 (L-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of TAAR3 of rat origin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-324392 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TAAR3 (L-17) is recommended for detection of TAAR3 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other TAAR family members.

Molecular Weight of TAAR3: 39 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.