



# TAAR4 (A-13): sc-55323

## BACKGROUND

Trace amines are endogenous molecules structurally related to classical biogenic amines that are linked to psychiatric conditions. TAAR4 belongs to a family of G protein-coupled receptors, referred to as trace-amine-associated receptors (TAARs), which are activated by trace amines and are present in very low levels in mammalian tissue. TAARs contain several structural features that are similar to the rhodopsin  $\beta$ -adrenergic receptor superfamily, including the positions of the seven-transmembrane regions that provide common ligand-binding pockets as well as the short N- and C-terminal domains. TAAR proteins are potential targets for studying amine-containing drugs of abuse, such as amphetamines and MDMA, as well as neuropsychiatric disorders including schizophrenia, depression and attention deficit disorder.

## REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604849. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Aridon, P., D'Andrea, G., Rigamonti, A., Leone, M., Casari, G. and Bussone, G. 2004. Elusive amines and cluster headache: mutational analysis of trace amine receptor cluster on chromosome 6q23. *Neurol. Sci.* 25 Suppl. 3: S279-280.
3. Lindemann, L., Ebeling, M., Kratochwil, N.A., Bunzow, J.R., Grandy, D.K. and Hoener, M.C. 2005. Trace amine-associated receptors form structurally and functionally distinct subfamilies of novel G protein-coupled receptors. *Genomics* 85: 372-385.
4. Miller, G.M., Verrico, C.D., Jassen, A., Konar, M., Yang, H., Panas, H., Bahn, M., Johnson, R. and Madras, B.K. 2005. Primate trace amine receptor 1 modulation by the dopamine transporter. *J. Pharmacol. Exp. Ther.* 313: 983-994.
5. Liberles, S.D. and Buck, L.B. 2006. A second class of chemosensory receptors in the olfactory epithelium. *Nature* 442: 645-650.
6. Wainscott, D.B., Little, S.P., Yin, T., Tu, Y., Rocco, V.P., He, J.X., Nelson, D.L. 2007. Pharmacologic characterization of the cloned human trace amine-associated receptor 1 (TAAR1) and evidence for species differences with the rat TAAR1. *J. Pharmacol. Exp. Ther.* 320: 475-485.

## CHROMOSOMAL LOCATION

Genetic locus: Taar4 (mouse) mapping to 10 A4.

## SOURCE

TAAR4 (A-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of TAAR4 of rat origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-55323 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TAAR4 (A-13) is recommended for detection of TAAR4 of mouse and 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).

Suitable for use as control antibody for TAAR4 siRNA (m): sc-63104.

Molecular Weight of TAAR4: 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.