



## TAAR4 (L-16): sc-55324

### 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

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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.
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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 (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic 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-55324 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

TAAR4 (L-16) is recommended for detection of TAAR4 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], 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).

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.