

## TaR (H-35): sc-134818

### BACKGROUND

Trace amines are endogenous molecules structurally related to classical biogenic amines that are linked to psychiatric conditions. A family of G protein-coupled receptors referred to as trace-amine-associated receptors, (TaRs or TAARs) are activated by trace amines and are present in very low levels in mammalian tissue. TaRs 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. TaRs are associated with the detection of social cues, illustrating their significance as therapeutic targets. Specifically, TaR proteins are potential targets for drugs of abuse, such as amphetamine 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. and Nelson, D.L. 2006. Pharmacologic characterization of the cloned human trace amine-associated receptor1 (TAAR1) and evidence for species differences with the rat TAAR1. *J. Pharmacol. Exp. Ther.* 320: 475-485.

### CHROMOSOMAL LOCATION

Genetic locus: TAAR1 (human) mapping to 6q23.2; Taar1 (mouse) mapping to 10 A4.

### SOURCE

TaR (H-35) is a rabbit polyclonal antibody raised against amino acids 158-192 mapping within an internal region of TaR-1 of human origin.

### PRODUCT

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

### APPLICATIONS

TaR (H-35) is recommended for detection of TaR-1 of human and, to a lesser extent, mouse and 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).

TaR (H-35) is also recommended for detection of TaR-1 in additional species, including bovine and porcine.

Suitable for use as control antibody for TaR siRNA (h): sc-61644, TaR siRNA (m): sc-61645, TaR shRNA Plasmid (h): sc-61644-SH, TaR shRNA Plasmid (m): sc-61645-SH, TaR shRNA (h) Lentiviral Particles: sc-61644-V and TaR shRNA (m) Lentiviral Particles: sc-61645-V.

Molecular Weight (predicted) of TaR: 39 kDa.

Molecular Weight (observed) of TaR: 33 kDa.

Molecular Weight of glycosylated TaR: 42 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> 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.


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Try **TaR (D-7): sc-398096**, our highly recommended monoclonal alternative to TaR (H-35).