

Product Specification Sheet

Taste Receptor 1 (TR1) Antibodies

Cat. # TR11-P	Rat TR1 Control Peptide	SIZE: 100 ug
Cat. # TR11-S	Rabbit Anti-rat TR1 antiserum #1	SIZE: 100 ul
Cat. # TR11-A	Rabbit Anti-rat TR1 Ig G #1 (aff pure)	SIZE: 100 ug

Higher vertebrates are believed to possess at least five basic tastes: Sweet, bitter, sour, salty, and unami (the taste of monosodium glutamate). Taste receptor cells that may selectively reside in various parts of the tongue and respond to different tastants and perceive these taste modalities. Circumvallate papillae, found at the very back of the tongue, are particularly sensitive to bitter substances. Foliate papillae, found at the posterior lateral edge of the tongue, are sensitive to sour and bitter. Fungiform papillae at the front of the tongue specialize in sweet taste.

Recently, two novel **taste receptors, TR1 and TR2**, have been cloned with distinct topographical distribution in taste receptor cells and taste buds. TRs are members of a new group of 7 TM domain containing GPCR distantly related to other chemosensory receptors (Ca⁺-sensing receptor (CaSR), a family of putative hormone receptor (V2R), and metabotropic glutamate receptors). TR1 is expressed in all fungiform taste buds, whereas TR2 localized to the circumvallate taste buds. Both receptors do not co-localize with gustducin.

Source of Antigen and Antibodies

Antigen	24-aa peptide of Rat TR1 Designated (TR11-P or control peptide) conjugated to KLH epitope location ~ C-terminus
Ab Host/type	Rabbit, polyclonal Unpurified antiserum (cat #TR11-S) Aff pure IgG (Cat #TR11-A)
2-ab	Goat Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)
-ve control IgG	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)
100ul solution lyophilized powder
Supplied 0.05% azide, **Reconstitute** powder in 100 ul PBS

Affinity pure IgG
100 ug/100ul solution lyophilized powder
Supplied in **Buffer:** PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide
100 ug/100 ul solution lyophilized powder
Supplied in **Buffer:** PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder

Recommended Usage

Western Blotting (1:1K-5K for neat serum and 1-10 ug/ml for affinity pure antibody using ECL technique).

ELISA: Control peptide can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (1:10-50K for neat serum and 0.5-1 ug/ml for affinity pure).

Histochemistry & Immunofluorescence: We recommend the use of affinity purified antibody at 1-20 ug/ml in paraformaldehyde fixed sections of tissues (1).

Specificity & Cross-reactivity

The 24 AA rat TR11-P control peptide is 100%specific for mouse and 87% conserved in human TR1. It has no significant sequence homology with TR2 or gustducin or pheromone receptors. Antibody cross-reactivity in various species has not been studied. The TR11-P control peptide is available to confirm specificity of antibodies. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol at the web site)

General References:

Hoon MA et al (1999) Cell 96, 541-555; Lindemann B (1999) Nature Med. 5, 381-382.

*This product is for In vitro research use only.

Related material available from ADI

Antibodies VR1, VRL-1, proton gated ion channels (ASIC1-3), CNG1-3; Gustducin-alpha and Taste receptor TR1 and TR2. Chloride channels 1-7.

Study distribution of protein in 12 anatomically defined regions of the rat/mouse brain using premade blots

Recycle your blot in Just 5-10 min. (use the same strip for various VR/VRL-1 receptors) New formulation will strip antibodies in just a few minutes at room temp. (no boiling or pungent mercaptoethanol).

TR11-S-A-P 71209A

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