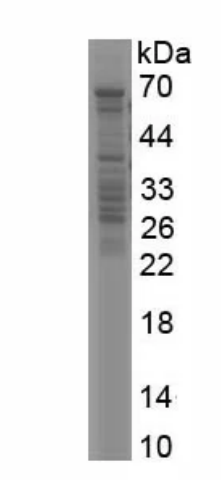
Active Taste Receptor Type 1 Member 3 (TAS1R3)

Catalog#:PEH12957

概述（Summary）

别称（Alternative Names）	T1R3; Sweet taste receptor T1R3
纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Ala21-Leu570】
Accession #	Q7RTX0
表达宿主（Host）	E.coli
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	65.7 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Putative taste receptor. TAS1R1/TAS1R3 responds to the umami taste stimulus (the taste of monosodium glutamate). TAS1R2/TAS1R3 recognizes diverse natural and synthetic sweeteners. TAS1R3 is essential for the recognition and response to the disaccharide trehalose. Sequence differences within and between species can significantly influence the selectivity and specificity of taste responses.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

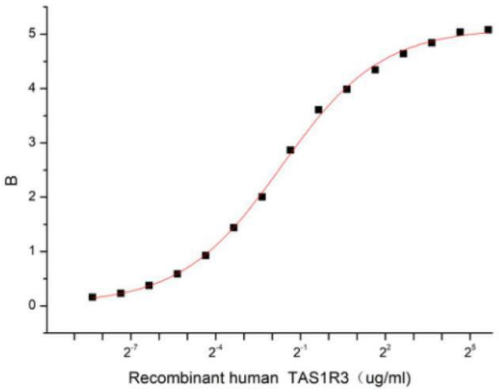


Figure 1. The binding activity of recombinant human TAS1R3 and recombinant mouse TAS1R1

Taste receptor type 1 member 3 (TAS1R3), responsible for mediating taste perception, is a G protein-coupled receptor (GPCR) expressed in gustatory cells located within the taste buds on the tongue. It can form a heterodimeric receptor with TAS1R1 to elicit the umami taste response, or it can bind with TAS1R2 to form a receptor for the sweet taste response, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human TAS1R3 and recombinant mouse TAS1R1. Briefly, biotin-linked TAS1R3 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to TAS1R1-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 µl stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant human TAS1R3 and recombinant mouse TAS1R1 was shown in Figure 1, the EC50 for this effect is 0.31 ug/mL.

注意事项（Note）

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