PRODUCT INFORMATION

Tag	C-Flag Tag
Expression Host	HEK293
Target	TRPV1
Synonyms	VR1
Description	Human TRPV1 full length protein-synthetic nanodisc
Uniprot ID	Q8NER1
Protein Families	Druggable Genome, Ion Channels: Transient receptor potential, Transmembrane
Protein Pathways	Neuroactive ligand-receptor interaction
Molecular Weight	The human full length TRPV1 protein has a MW of 95.0 kDa
Delivery	In Stock
Formulation & Reconstitution	Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions. Do not use solvents with a pH below 6.5 or those containing high concentrations of divalent metal ions (greater than 5 mM) in subsequent experiments.
Sterility	Products are supplied non-sterile. For cell culture applications, dilute in appropriate medium and sterile-filter (0.22 µm) prior to use.
Storage&Shipping	Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.
Background	Capsaicin, the main pungent ingredient in hot chili peppers, elicits a sensation of burning pain by selectively activating sensory neurons that convey information about noxious stimuli to the central nervous system. The protein encoded by this gene is a receptor for capsaicin and is a non-selective cation channel that is structurally related to members of the TRP family of ion channels. This receptor is also activated by increases in temperature in the noxious range, suggesting that it functions as a transducer of painful thermal stimuli in vivo. Four transcript variants encoding the same protein, but with different 5' UTR sequence, have been described for this gene.
Usage	Research use only
Conjugate	Unconjugated

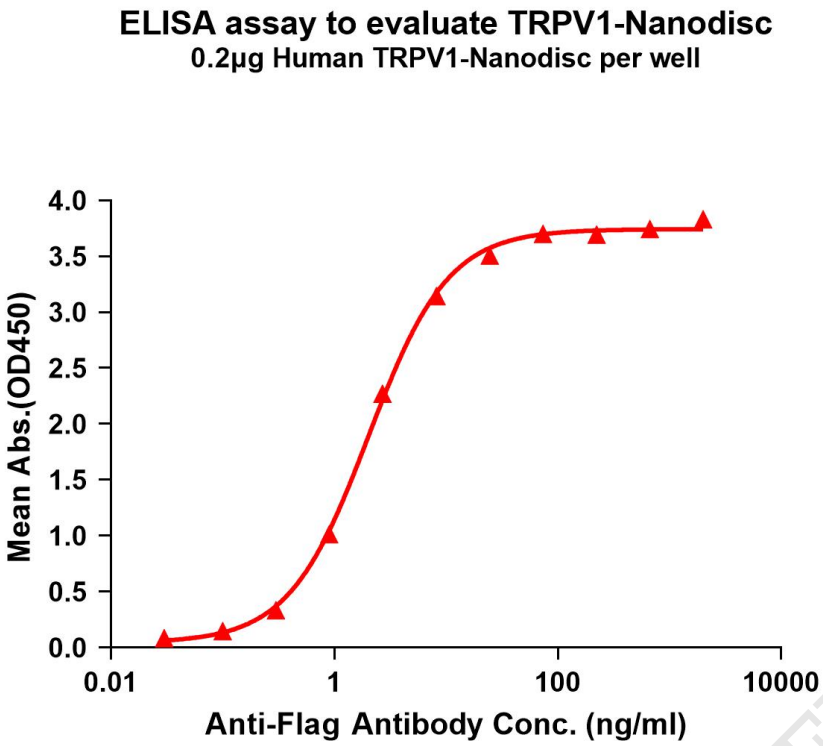

Figure 1. Elisa plates were pre-coated with Flag Tag TRPV1-Nanodisc (0.2μg/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with TRPV1-Nanodisc is 2.027ng/ml.

Figure 2. WB analysis of Human TRPV1-Nanodisc with anti-Flag monoclonal antibody at 1/5000 dilution, followed by Goat Anti-Rabbit IgG HRP at 1/5000 dilution

Cited in Literature

Li, J., Zhou, Z., Wu, Y., Zhao, J., Duan, H., Peng, Y., Wang, X., Fan, Z., Yin, L., Li, M., Liu, F., Yang, Y., Du, L., Li, J., Zhong, H., Hou, W., Zhang, F., Ma, H., & Zhang, X. (2025). Heat acclimation defense against exertional heat stroke by improving the function of preoptic TRPV1 neurons. Theranostics, 15(4), 1376–1398. https://doi.org/10.7150/thno.101422 (**PubMed**)