

Product datasheet

Frizzled 6 peptide ab108466

Overview

Product name Frizzled 6 peptide

Description

Nature Synthetic

Specifications

Our [Abpromise guarantee](#) covers the use of **ab108466** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Purity 70 - 90% by HPLC.

Additional notes

- First try to dissolve a small amount of peptide in either water or buffer. The more charged residues on a peptide, the more soluble it is in aqueous solutions.
- If the peptide doesn't dissolve try an organic solvent e.g. DMSO, then dilute using water or buffer.
- Consider that any solvent used must be compatible with your assay. If a peptide does not dissolve and you need to recover it, lyophilise to remove the solvent.
- Gentle warming and sonication can effectively aid peptide solubilisation. If the solution is cloudy or has gelled the peptide may be in suspension rather than solubilised.
- Peptides containing cysteine are easily oxidised, so should be prepared in solution just prior to use.

Preparation and Storage

Stability and Storage Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

Information available upon request.

General Info

Function Receptor for Wnt proteins. Most of frizzled receptors are coupled to the beta-catenin canonical signaling pathway, which leads to the activation of disheveled proteins, inhibition of GSK-3 kinase, nuclear accumulation of beta-catenin and activation of Wnt target genes. A second

signaling pathway involving PKC and calcium fluxes has been seen for some family members, but it is not yet clear if it represents a distinct pathway or if it can be integrated in the canonical pathway, as PKC seems to be required for Wnt-mediated inactivation of GSK-3 kinase. Both pathways seem to involve interactions with G-proteins. May be involved in transduction and intercellular transmission of polarity information during tissue morphogenesis and/or in differentiated tissues. Together with FZD3, is involved in the neural tube closure and plays a role in the regulation of the establishment of planar cell polarity (PCP), particularly in the orientation of asymmetric bundles of stereocilia on the apical faces of a subset of auditory and vestibular sensory cells located in the inner ear.

Tissue specificity

Detected in adult heart, brain, placenta, lung, liver, skeletal muscle, kidney, pancreas, thymus, prostate, testis, ovary, small intestine and colon. In the fetus, expressed in brain, lung, liver and kidney.

Involvement in disease

Nail disorder, non-syndromic congenital, 10
Rare non-synonymous variants in FZD6 may contribute to neural tube defects, congenital malformations of the central nervous system and adjacent structures related to defective neural tube closure during the first trimester of pregnancy.

Sequence similarities

Belongs to the G-protein coupled receptor Fz/Smo family.
Contains 1 FZ (frizzled) domain.

Domain

Lys-Thr-X-X-X-Trp motif interacts with the PDZ domain of Dvl (Disheveled) family members and is involved in the activation of the Wnt/beta-catenin signaling pathway.
The FZ domain is involved in binding with Wnt ligands.

Post-translational modifications

Ubiquitinated by ZNRF3, leading to its degradation by the proteasome.

Cellular localization

Membrane. Cell membrane. Cell surface. Apical cell membrane. Cytoplasmic vesicle membrane. Colocalizes with FZD3 at the apical face of cells (By similarity).

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