10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SLIGKV-NH2 Protein

A Potent Agonist of PAR2, Derived from PAR2 Auto-Ligand Sequence
Catalog # PG10019

Specification

SLIGKV-NH2 Protein - Product Information

SLIGKV-NH2 Protein - Additional Information

Storage
-20°C

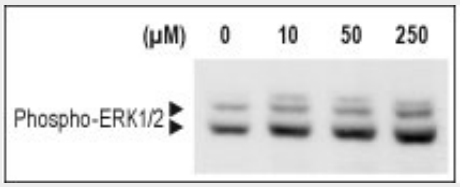
Precautions
SLIGKV-NH2 Protein is for research use only and not for use in diagnostic or therapeutic procedures.

SLIGKV-NH2 Protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SLIGKV-NH2 Protein - Images



SLIGKV-NH2 - Abgent SLIGKV-NH2 induces MAPK activation in MDA-231 cells via PAR2 activation.MDA-231 cells were stimulated with 10, 50 and 250 μM SLIGKV-NH2(#PG10019) for 15 min. Cell proteins were resolved by SDS-PAGE and probed with anti-phospho-ERK1/2.

SLIGKV-NH2 Protein - Background

Protease-activated receptors (PARs) 1-4 belong to the superfamily of G-protein-coupled receptors (GPCRs) that are self-activated by a tethered sequence exposed by proteolysis of an extracellular domain1. PARs are activated by proteolysis in response to endogenous and exogenous proteases and can contribute to both cellular homeostasis and pathology1-2. In the case of PAR2, the exposed

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

human peptide SLIGVK-NH2 remains tethered on the receptor and activates a primary binding site located on second loop of the receptor1. As an obvious consequence of its activation mechanism, PAR2 is associated with pathologies with a strong protease release. The involvement of PAR2 in inflammatory diseases such as arthritis, lung inflammation (asthma), inflammatory bowel disease, sepsis, and pain disorders4-6makes PAR2 an attractive target for drug intervention3. The extracellular N-terminus of PAR2 (46 residues long) contains a putative trypsin cleavage site R34 and S351, followed by LIGKV. The human-derived SLIGKV-NH2is a small peptide that mimics the ligand binding properties of the tethered ligand exposed by proteolysis of the N-terminus from the natural receptor7 and hence, a significant tool used to study PAR2.

SLIGKV-NH2 Protein - References

1 . Ossovskaya VS. et al.(2004)Physiol Rev.84,579.2 . Rattenholl A. et al.(2008)Drug News Perspect. 21,369.3 . Boitano S. et al.(2011)J. Med. Chem.54,1308.4 . Barry GD. et al. (2006) Curr. Med. Chem.13,243.5 . Steinhoff M. et al. (2005) Endocr.Rev.26, 1.6 . Cottrell GS. et al.(2003)Biochem. Soc.Trans. 31, 1191.7 . Ramachandran R. et al.(2008)Br. J. Pharmacol.153,S263.