

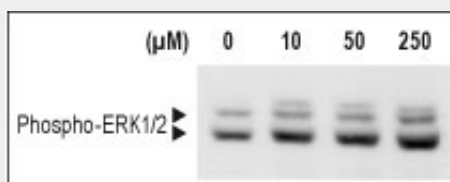
SLIGKV-NH2 Protein**A Potent Agonist of PAR2, Derived from PAR2 Auto-Ligand Sequence****Catalog # PG10019****Specification****SLIGKV-NH2 Protein - Product Information****SLIGKV-NH2 Protein - Additional Information****Storage****-20°C****Precautions**

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 Cytometry](#)
- [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 domain. 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

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 disorders⁴⁻⁶ makes 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-NH₂ is 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.