PRODUCT INFORMATION

PAR4 (1-6) (human)

Item No. 27126

CAS Registry No.:	225779-44-2
Formal Name:	glycyl-L-tyrosyl-L-prolylglycyl-L-glutaminyl-L-valine
Synonym:	GYPGQV
MF:	$C_{28}H_{41}N_7O_9$
FW:	619.7
Purity:	≥98%
UV/Vis.:	λ_{max}: 225, 279 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years

H—Gly—Tyr—Pro—Gly—Gln—Val—OH

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

PAR4 (1-6) (human) is supplied as a crystalline solid. A stock solution may be made by dissolving the PAR4 (1-6) (human) in the solvent of choice. PAR4 (1-6) (human) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of PAR4 (1-6) (human) in these solvents is approximately 50 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of PAR4 (1-6) (human) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of PAR4 (1-6) (human) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PAR4 (1-6) is a peptide agonist of proteinase-activated receptor 4 (PAR4) that corresponds to residues 1-6 of the amino terminal tethered ligand sequence of human PAR4 and residues 48-53 of the full-length sequence.[1] It activates PAR4 and the cleavage site mutant $PAR4^{R47A}$ when used at a concentration of 500 µM.[2] PAR4 (1-6) induces platelet aggregation of isolated washed human platelets when used at a concentration of 1 mM but does not affect clotting time induced by factor VIIa, soluble tissue factor, and collagen in an *ex vivo* coagulation assay.[3]

References

1. Vergnolle, N., Wallace, J.L., Bunnett, N.W., *et al.* Protease-activated receptors in inflammation, neuronal signaling and pain. *Trends Pharmacol. Sci.* **22(3),** 146-152 (2001).
2. Xu, W.F., Andersen, H., Whitmore, T.E., *et al.* Cloning and characterization of human protease-activated receptor 4. *Proc. Natl. Acad. Sci. U.S.A.* **95(12),** 6642-6646 (1998).
3. Andersen, H., Greenberg, D.L., Fujikawa, K., *et al.* Protease-activated receptor 1 is the primary mediator of thrombin-stimulated platelet procoagulant activity. *Proc. Natl. Acad. Sci. U.S.A.* **96(20),** 11189-11193 (1999).

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