

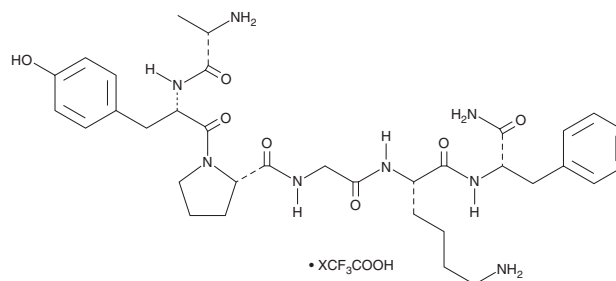
PRODUCT INFORMATION



(Ala1)-PAR4 (1-6) amide (mouse) (trifluoroacetate salt)

Item No. 24258

Formal Name: L-alanyl-L-tyrosyl-L-prolylglycyl-L-lysyl-L-phenylalaninamide, trifluoroacetate salt
Synonyms: AY-NH₂, AYPGKF-NH₂, H-Ala-Tyr-Pro-Gly-Lys-Phe-NH₂, PAR-4-AP, Proteinase-Activated Receptor 4 Activating Peptide
MF: C₃₄H₄₈N₈O₇ • XCF₃COOH
FW: 680.8
Purity: ≥95%
Supplied as: A lyophilized powder
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

(Ala1)-PAR4 (1-6) amide (mouse) (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the (Ala1)-PAR4 (1-6) amide (mouse) (trifluoroacetate salt) in water. The solubility of (Ala1)-PAR4 (1-6) amide (mouse) (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

(Ala1)-PAR4 (1-6) amide (mouse) (trifluoroacetate salt) is a peptide agonist of proteinase-activated receptor 4 (PAR4) that induces aggregation of rat and human platelets *in vitro* (EC₅₀s = 15 and 60 μM, respectively).^{1,2} It reduces expression of glycoprotein (GP) Ib, and increases expression of GPIIb/IIIa on the surface of human platelets.² (Ala1)-PAR4 (1-6) amide (mouse) (trifluoroacetate salt) induces relaxation of isolated rat aortic rings and contraction of rat gastric longitudinal muscle strips (EC₅₀s = 11 and 110 μM, respectively) as well as inhibits calcium mobilization evoked by capsaicin (Item No. 92350) in rat sensory neurons.^{3,4} *In vivo*, (Ala1)-PAR4 (1-6) amide (mouse) (trifluoroacetate salt) (1-100 μg) increases latency to paw withdrawal and the nociceptive threshold in response to thermal and mechanical stimuli.⁴ (Ala1)-PAR4 (1-6) amide (mouse) (trifluoroacetate salt) (200 μg) also increases paw thickness in a rat paw edema assay.

References

- Hollenberg, M.D. and Saifeddine, M. Proteinase-activated receptor 4 (PAR4): Activation and inhibition of rat platelet aggregation by PAR4-derived peptides. *Can. J. Physiol. Pharmacol.* **79**(5), 439-442 (2001).
- Chung, A.W., Jurasz, P., Hollenberg, M.D., *et al.* Mechanisms of action of proteinase-activated receptor agonists on human platelets. *Br. J. Pharmacol.* **135**(5), 1123-1132 (2002).
- Hollenberg, M.D., Saifeddine, M., Sandhu, S., *et al.* Proteinase-activated receptor-4: Evaluation of tethered ligand-derived peptides as probes for receptor function and as inflammatory agonists *in vivo*. *Br. J. Pharmacol.* **143**(4), 443-454 (2004).
- Asfaha, S., Cenac, N., Houle, S., *et al.* Protease-activated receptor-4: A novel mechanism of inflammatory pain modulation. *Br. J. Pharmacol.* **150**(2), 176-185 (2007).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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