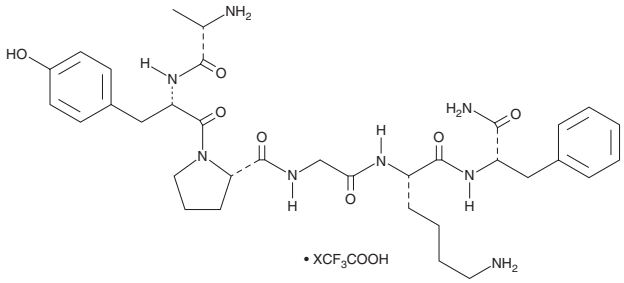
PRODUCT INFORMATION

(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-NH_2, AYPGKF-NH_2, H-Ala-Tyr-Pro-Gly-Lys-Phe-NH_2, PAR-4-AP, Proteinase-Activated Receptor 4 Activating Peptide
MF: $C_{34}H_{48}N_8O_7 \bullet XCF_3COOH$
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* (EC_{50}s = 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 (EC_{50}s = 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

1. 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).
2. 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).
3. 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).
4. 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).

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