PRODUCT INFORMATION

PAR2 (1-6) (mouse, rat)

Item No. 27125

CAS Registry No.: 164081-25-8
Formal Name: L-seryl-L-leucyl-L-isoleucylglycyl-L-arginyl-L-leucine
Synonym: SLIGRL
MF: $C_{29}H_{55}N_9O_8$
FW: 657.8
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years

H—Ser—Leu—Ile—Gly—Arg—Leu—OH

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

Laboratory Procedures

PAR2 (1-6) (mouse, rat) is supplied as a crystalline solid. A stock solution may be made by dissolving the PAR2 (1-6) (mouse, rat) in the solvent of choice, which should be purged with an inert gas. PAR2 (1-6) (mouse, rat) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of PAR2 (1-6) (mouse, rat) 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 PAR2 (1-6) (mouse, rat) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of PAR2 (1-6) (mouse, rat) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PAR2 (1-6) is a synthetic peptide agonist of proteinase-activated receptor 2 (PAR2) that corresponds to residues 1-6 of the amino terminal tethered ligand sequence of mouse and rat PAR2. It also corresponds to residues 39-44 and 37-42 of the mouse and rat full-length sequences, respectively. PAR2 (1-6) induces relaxation in precontracted rat arteries in a concentration-dependent manner, an effect that can be reduced by the nitric oxide synthase inhibitor L-NNA (Item No. 80220).[1] It inhibits keratinocyte growth in the presence and absence of growth factors.[2] PAR2 (1-6) inhibits LPS-induced pulmonary neutrophil influx and increases in matrix metalloproteinase-2 (MMP-2) activity in mice.[3]

References

1. Villari, A., Giurdanella, G., Bucolo, C., *et al.* Apixaban enhances vasodilatation mediated by protease-activated receptor 2 in isolated rat arteries. *Front. Pharmacol.* **8:480,** (2017).
2. Derian, C.K., Eckardt, A.J., and Andrade-Gordon, P. Differential regulation of human keratinocyte growth and differentiation by a novel family of protease-activated receptors. *Cell Growth Differ.* **8(7),** 743-749 (1997).
3. Moffatt, J.D., Jeffrey, K.L., and Cocks, T.M. Protease-activated receptor-2 activating peptide SLIGRL inhibits bacterial lipopolysaccharide-induced recruitment of polymorphonuclear leukocytes into the airways of mice. *Am. J. Respir. Cell Mol. Biol.* **26(6),** 680-684 (2002).

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