

PRODUCT INFORMATION



IRBP (1-20) (human, rat) (trifluoroacetate salt)

Item No. 36727

Formal Name: glycyl-L-prolyl-L-threonyl-L-histidyl-L-leucyl-L-phenylalanyl-L-glutaminy-L-prolyl-L-seryl-L-leucyl-L-valyl-L-leucyl-L- α -aspartyl-L-methionyl-L-alanyl-L-lysyl-L-valyl-L-leucyl-L-leucyl-L-aspartic acid, trifluoroacetate salt

Synonyms: Interphotoreceptor Retinoid-Binding Protein (1-20), IRBP₁₋₂₀

Peptide Sequence: GP₁THLFQPSLVLDMAKVLLD-OH

MF: C₁₀₁H₁₆₄N₂₄O₂₈S • XCF₃COOH

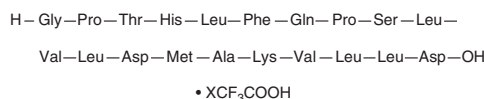
FW: 2,194.6

Purity: \geq 95%

Supplied as: A solid

Storage: -20°C

Stability: \geq 4 years



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

Laboratory Procedures

IRBP (1-20) (human, rat) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the IRBP (1-20) (human, rat) (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. IRBP (1-20) (human, rat) (trifluoroacetate salt) is soluble in a 10:90 solution of acetonitrile:water. We do not recommend storing the aqueous solution for more than one day.

Description

Interphotoreceptor retinoid-binding protein (1-20) (IRBP₁₋₂₀) is a dodecapeptide fragment of IRBP, also known as retinoid-binding protein 3, which is involved in pigment regeneration by transporting retinol and retinal from photoreceptor cells to the retinal pigment epithelium.^{1,2} IRBP₁₋₂₀ has been used to induce autoimmune uveoretinitis in C57BL/6 mice, which bear the H-2^b haplotype.² IRBP₁₋₂₀ (3 μ M) increases the levels of IL-4, IL-5, and IL-6 secreted from primary mouse spleen lymphocytes. Immunization and rechallenge with IRBP₁₋₂₀ increases ear swelling, ocular blood vessel inflammation, immune cell infiltration, and photoreceptor layer damage, as well as retinal detachment, in IFN- γ deficient mice.

References

1. Zeng, S., T., Z., Madigan, M.C., *et al.* Interphotoreceptor retinoid-binding protein (IRBP) in retinal health and disease. *Front. Cell. Neurosci.* **14**, 577935 (2020).
2. Avichezer, D., Chan, C.-C., Silver, P.B., *et al.* Residues 1-20 of IRBP and whole IRBP elicit different uveitogenic and immunological responses in interferon gamma deficient mice. *Exp. Eye Res.* **71(2)**, 111-118 (2000).

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.

WARRANTY AND LIMITATION OF REMEDY

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