

PRODUCT INFORMATION

6x-His (trifluoroacetate salt)

Item No. 44489

Formal Name: L-histidyl-L-histidyl-L-histidyl-L-histidyl-L-histidyl-L-histidine, trifluoroacetate salt

Synonyms: Hexa-His, His₆, His-His-His-His-His-His-OH

Peptide Sequence: HHHHHH-OH

MF: C₃₆H₄₄N₁₈O₇ • XCF₃COOH

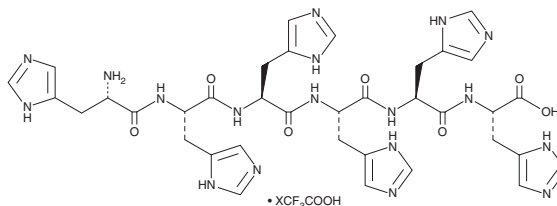
FW: 840.9

Purity: ≥98%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

6x-His (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the 6x-His (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. 6x-His (trifluoroacetate salt) is sparingly soluble (1-10 mg/ml) in ethanol and DMSO.

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 6x-His (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. 6x-His (trifluoroacetate salt) is soluble (≥10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

6x-His is a polyhistidine peptide tag.¹ It has been used in various applications, including affinity purification, addition to the sequences of recombinant proteins to selectively pull-down those proteins, and structural biology applications.¹⁻⁴

References

1. Jung, K.-H., Park, Y.-S., Yeon, J.-H., *et al.* Improving the yield of soluble 6xHis-tagged interferon- α via the addition of repressor of the *araBAD* promoter system in *Escherichia coli*. *Biotechnol. Lett.* **30(9)**, 1577-1582 (2008).
2. Crowe, J., Masone, B.S., and Ribbe, J. One-step purification of recombinant proteins with the 6xHis tag and Ni-NTA resin. *Basic DNA and RNA protocols*. Harwood, A.J., editor, *Humana Press Inc.* (1996).
3. Karakus, C., Uslu, M., Yazici, D., *et al.* Evaluation of immobilized metal affinity chromatography kits for the purification of histidine-tagged recombinant CagA protein. *J. Chromatogr. B Analyt. Technol. Biomed. Life Sci.* **1021**, 182-187 (2016).
4. Movellan, K.T., Zhu, W., Banks, D., *et al.* Expanding the tool box for native structural biology: ¹⁹F dynamic nuclear polarization with fast magic angle spinning. *Sci. Adv.* **10(40)**, eadq3115 (2024).

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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