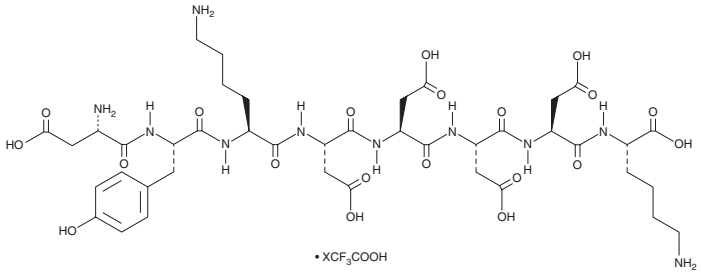
PRODUCT INFORMATION

DYKDDDDK Peptide (trifluoroacetate salt)

Item No. 33198

Formal Name:	L-aspartyl-L-tyrosyl-L-lysyl-L-aspartyl-L-aspartyl-L-aspartyl-L-aspartyl-L-lysine, trifluoroacetate salt
Synonyms:	DYKDDDDK Epitope, DYKDDDDK Octapeptide, DYKDDDDK Tag
MF:	$C_{41}H_{60}N_{10}O_{20} \bullet XCF_3COOH$
FW:	1,013.0
Purity:	≥98%
Supplied as:	A crystalline 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

DYKDDDDK peptide (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the DYKDDDDK peptide (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. DYKDDDDK peptide (trifluoroacetate salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of DYKDDDDK peptide (trifluoroacetate salt) in these solvents is approximately 10 and 1 mg/ml, respectively.

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 DYKDDDDK peptide (trifluoroacetate salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of DYKDDDDK peptide (trifluoroacetate salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

DYKDDDDK peptide is a synthetic octapeptide and fusion tag.[1,2] It can be added to the N- or C-terminus of proteins or inserted into the protein sequence and later cleaved using enteropeptidase. Due to its hydrophilicity, it has a low potential to interfere with protein folding or activity. DYKDDDDK peptide has commonly been used as an epitope tag on recombinant proteins to facilitate their detection and purification by DYKDDDDK-specific antibodies *in vitro* and *in vivo*.[1-4]

References

1. Hopp, T.P., Prickett, K.S., Price, V.L., *et al.* A short polypeptide marker sequence useful for recombinant protein identification and purification. *Nat. Biotechnol.* **6**, 1204-1210 (1988).
2. Einhauer, A. and Jungbauer, A. The FLAG™ peptide, a versatile fusion tag for the purification of recombinant proteins. *J. Biochem. Biophys. Methods* **49(1-3)**, 455-465 (2001).
3. Ichiki, T., Koga, T., Okuno, T., *et al.* Modulation of leukotriene B_4 receptor 1 signaling by receptor for advanced glycation end products (RAGE). *FASEB J.* **30(5)**, 1811-1822 (2016).
4. Ikeda, K., Koga, T., Sasaki, F., *et al.* Generation and characterization of a human-mouse chimeric high-affinity antibody that detects the DYKDDDDK FLAG peptide. *Biochem. Biophys. Res. Commun.* **486(4)**, 1077-1082 (2017).

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