Product Data Sheet

Product Name:	TAT-NSF700scr
Catalog Number:	AS-62209 (1 mg) Lot Number: See label on vial
Sequence:	H-Tyr-Gly-Arg-Lys-Lys-Arg-Arg-Gln-Arg-Arg-Arg-Gly-Gly-Gly-Ile-Pro-Pro-Val-Tyr-Phe-Ser-Arg-Leu-Asp-Leu-Asn-Leu-Val-Val-Leu-Leu-Leu-Ala-Gln-Leu-OH (3-letter code) YGRKKRRQRRRGGGIPPVYFSRLDLNLVVLLLAQL (1-letter code)
Molecular Weight:	4109.9
Peptide Purity:	>95%
Appearance:	Lyophilized white powder
Peptide Reconstitution:	TAT-NSF700scr peptide is freely soluble in water.

Storage: TAT-NSF700scr peptide is shipped at ambient temperature. Upon receipt, store lyophilized peptide at –20°C or lower. Reconstituted peptide can be aliquoted and stored at -20 °C or lower.

Description: This scrambled human immunodeficiency virus (HIV) transactivator of transcription (TAT) N-ethylmaleimide-sensitive factor (NSF) 700scr peptide is used as a control peptide to TAT-NSF700 peptide. It does not inhibit the disassembly activity of NSF in contrast to the TAT-NSF700 which plays a critical role in regulating exocytosis. Ref: Morrell, C. et al. *JPET* **314**, 155 (2005).

Additional Information: *Listed below are relevant information that may provide a guideline on how to use this product. End users will have to adapt to their own specific applications.*

AT-NSF fusion peptides were synthesized by Anaspec (San Jose, CA). The peptide sequence of TAT-NSF700 was YGRKKRRQRRR-GGG-LLDYVPIGPRFSNLVLQALLVL, and TAT-NSF700scr was YGRKKRRQRRR-GGG-IPPVYFSRLDLNLVVLLLAQL. The ATPase activity of NSF was measured by a coupled assay, in which ATP utilization is linked to the pyruvate kinase reaction, which generates pyruvate, which in turn is measured continuously with lactate dehydrogenase . Recombinant NSF (0.2 µg/µl) was pretreated with TAT-NSF700 or TAT-NSF700scr for 10 min at 22°C. ATPase reaction buffer (100 mM HEPES buffer, pH 7.0, 100 mM KCl, 10 mM $MgCl_2$, 5 mM $CaCl_2$, 10 mM ATP, 5 mM phosphoenol pyruvate, 50 U lactate dehydrogenase, and 50 U pyruvate kinase) was added to the mixture, followed by 10 µl of NADH (2 mg/ml in 1% sodium bicarbonate). The mixture was incubated for 10 min at 22°C, and the absorbance was measured at 340 nm-Morrell, CN. et al. J. of *Pharmacol. & Exp. Therap*. **314**, 155 (2005)

Published Citations:

Morrell, CN. et al. J. of *Pharmacol. & Exp. Therap*. **314**, 155 (2005).
Trang, T. et al. *J. Neuroscience* **29**, 3518 (2009).

Related Products:

Name	Cat #	Size
TAT-NSF700 Fusion Peptide YGRKKRRQRRR-GGG-LLDYVPIGPRFSNLVLQALLVL	AS-62238	1 mg
TAT-NSF222 Fusion Peptide YGRKKRRQRRR-GGG-LDKEFNSIFRRAFASRVFPPE	AS-62240	1 mg
TAT-NSF222scr Fusion Polypeptide, scrambled YGRKKRRQRRR-GGG-ENSFRFLADIFPAKAFPVRFE	AS-62210	1 mg

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