

# PRODUCT INFORMATION



## Tat-ASIC1a (1-20) (mouse, rat) (trifluoroacetate salt)

Item No. 37501

**Synonyms:** NT1-20, Tat-Acid-sensing Ion Channel 1a (1-20)  
**Peptide Sequence:** GRKKRRQRRRCMELKTEEEVGGVQPVSIIQA-OH  
**MF:** C<sub>150</sub>H<sub>265</sub>N<sub>55</sub>O<sub>47</sub>S<sub>2</sub> • XCF<sub>3</sub>COOH  
**FW:** 3,655.2  
**Purity:** ≥95%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years

H—Gly—Arg—Lys—Lys—Arg—Arg—Gln—Arg—Arg—Arg—  
Cys—Met—Glu—Leu—Lys—Thr—Glu—Glu—Glu—Glu—  
Val—Gly—Gly—Val—Gln—Pro—Val—Ser—Ile—Gln—  
Ala—OH  
• XCF<sub>3</sub>COOH

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

### Laboratory Procedures

Tat-ASIC1a (1-20) (mouse, rat) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the Tat-ASIC1a (1-20) (mouse, rat) (trifluoroacetate salt) in water. We do not recommend storing the aqueous solution for more than one day.

### Description

Tat-ASIC1a (1-20) is a synthetic peptide composed of the cell-penetrating peptide sequence from the HIV-1 Tat protein transduction domain linked to a 20-amino acid peptide corresponding to amino acids 1-20 of acid-sensing ion channel 1a (ASIC1a).<sup>1</sup> It prevents acid-induced association of ASIC1a with receptor-interacting serine/threonine kinase 1 (RIPK1) and necroptosis in primary mouse cortical neurons when used at a concentration of 10 μM. Tat-ASIC1a (1-20) decreases infarct volume in a mouse model of ischemia induced by middle cerebral artery occlusion (MCAO).

### Reference

1. Wang, J.-J., Liu, F., Yang, F., *et al.* Disruption of auto-inhibition underlies conformational signaling of ASIC1a to induce neuronal necroptosis. *Nat. Commun.* **11**(1), 475 (2020).

**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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