

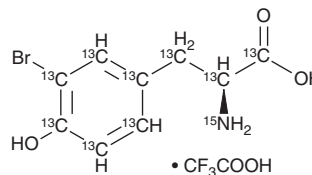
PRODUCT INFORMATION



3-Bromotyrosine-¹³C₉,¹⁵N (trifluoroacetate salt)

Item No. 9003007

Formal Name: (S)-2-(amino-¹⁵N)-3-(3-bromo-4-hydroxyphenyl-1,2,3,4,5,6-¹³C₆)propanoic-1,2,3-¹³C₃ acid, 2,2,2-trifluoroacetic acid
Synonym: 3-bromo-Tyr-¹³C₉,¹⁵N
MF: [¹³C₉]H₁₀Br[¹⁵N]O₃ • CF₃COOH
FW: 384.0
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

3-Bromotyrosine-¹³C₉,¹⁵N (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the 3-bromotyrosine-¹³C₉,¹⁵N (trifluoroacetate salt) in the solvent of choice. 3-Bromotyrosine-¹³C₉,¹⁵N (trifluoroacetate salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of 3-bromotyrosine-¹³C₉,¹⁵N (trifluoroacetate salt) in these solvents is approximately 30 mg/ml.

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 3-bromotyrosine-¹³C₉,¹⁵N (trifluoroacetate salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 3-bromotyrosine-¹³C₉,¹⁵N (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

3-Bromotyrosine-¹³C₉,¹⁵N is intended for use as an internal standard for the quantification of 3-bromotyrosine (Item No. 22606) by GC- or LC-MS.^{1,2} 3-Bromotyrosine is a product of protein oxidation found after activation of eosinophils during an allergic response.²⁻⁴ It has been used as a marker of eosinophil peroxidase-induced protein oxidation *in vitro* and *in vivo*.^{4,5} In addition to its production in eosinophils, 3-bromotyrosine is found at 5-fold higher levels in peritoneal exudate from mice infected with *K. pneumoniae* compared with uninfected animals, suggesting neutrophils release higher levels of oxidized products during inflammation.¹ In a human study, 3-bromotyrosine was increased in allergen-challenged lung samples from subjects with allergen-induced asthma.

References

1. Gaut, J.P., Belaouaj, A., Byun, J.Y., *et al.* *Free Radic. Biol. Med.* **40(9)**, 1494-1501 (2006).
2. MacPherson, J.C., Comhair, S.A., Erzurum, S.C., *et al.* *J. Immunol.* **166(9)**, 5763-5772 (2001).
3. Heinecke, J.W. *J. Clin. Invest.* **105(10)**, 1331-1332 (2000).
4. Wu, W., Samoszuk, M.K., Comhair, S.A., *et al.* *J. Clin. Invest.* **105(10)**, 1455-1463 (2000).
5. Wu, W., Chen, Y., d'Avignon, A., *et al.* *Biochemistry* **38(12)**, 3538-3548 (1999).

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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