



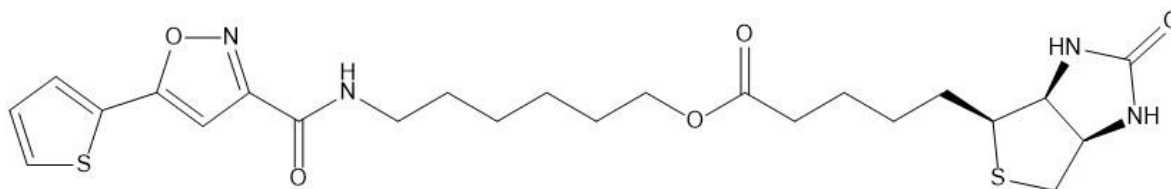
Catalog # 10-5400

Biotin-isoxazole

CAS# 1377605-22-5

6-(5-(Thiophen-2-yl)isoxazole-3-carboxamido)hexyl 5-((3aS,4S,6aR)-2-oxohexahydro-1H-thieno[3,4-d]imidazol-4-yl)pentanoate; B-isox

Lot # S106141



Exposure of cell or tissue lysates to biotin-isoxazole precipitates hundreds of RNA-binding proteins with significant overlap to the constituents of RNA granules.^{1,2} In one study roughly 580 nuclear proteins were identified as being precipitated by B-Isox including TAF15, RNA polymerase II (largest subunit), numerous subunits of the mediator complex as well as a variety of enzymes involved in epigenetic modification of histones.³ SR domains were found to be the determinant that facilitates B-Isox precipitation.⁴ Also allows for the fractionation / isolation of SG-associated proteins and RNA precipitates.⁵

- 1) Kato et al. (2012), *Cell-free formation of rRNA granules: low complexity sequence domains form dynamic fibers within hydrogels*; Cell, **149** 753
- 2) Han et al. (2012), *Cell-free formation of RNA granules: bound RNAs identify features and components of cellular assemblies*; Cell, **149** 768
- 3) Kwon et al. (2013), *Phosphorylation-regulated binding of RNA polymerase II to fibrous polymers of low-complexity domains*; Cell, **155** 1049
- 4) Kwon et al. (2014), *Poly-dipeptides encoded by the C9orf72 repeats bind nucleoli, impede RNA biogenesis, and kill cells*; Science, **345** 1139
- 5) Panas et al. (2015), *Methods for the characterization of stress granules in virus infected cells*; Methods, **90** 57

PHYSICAL DATA

Molecular Weight: 520.66
Molecular Formula: C₂₄H₃₂N₄O₅S₂
Purity: 98% by TLC
NMR: (Conforms)
Solubility: DMSO (up to 30 mg/ml with warming)
Physical Description: Beige solid
Storage and Stability: Store as supplied desiccated at -20°C for up to 2 years from the date of purchase.
Solutions in DMSO may be stored at -20°C for up to 1 month.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.