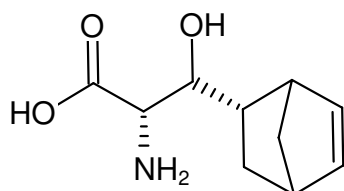




### 3-Norbornene-L-serine

2-amino-3-bicyclo[2.2.1]hept-5-en-2-yl-3-hydroxypropanoic acid

Cat. No.	Amount
CLK-109-25	25 mg
CLK-109-100	4 x 25 mg



Structural formula of 3-Norbornene-L-serine

**For research use only!**

**Shipping:** shipped on blue ice

**Storage Conditions:** store at -20 °C

**Additional Storage Conditions:** store dry

**Shelf Life:** 12 months after date of delivery

**Molecular Formula:** C<sub>10</sub>H<sub>15</sub>NO<sub>3</sub>

**Molecular Weight:** 197.23 g/mol

**Exact Mass:** 197.11 g/mol

**Purity:** ≥ 90 % (HPLC)

**Form:** white to off-white powder

**Solubility:** 80 % EtOH / 0.2M NH<sub>4</sub>OH up to 100 mM

#### Applications:

The norbornene-tetrazine click reaction is ideally suited for protein labeling in living cells.

#### Description:

The inverse-electron demand Diels-Alder reaction of a novel amino acid bearing a norbornene moiety 3-norbornene-L-serine with tetrazines is a bioorthogonal reaction that possesses exceptional kinetics (0.59 M<sup>-1</sup>s<sup>-1</sup>) and selectivity. Both the carboxylic acid and the amine functionalities on 3-norbornene-L-serine make it an ideal linker for the functionalization of diverse compounds by using N-hydroxysuccinimide ester and amine-carboxylic acid coupling system.

#### Note:

Prepare the stock solution of 3-norbornene-L-serine immediately before use.

#### Selected References:

Knall, A.C. *et al.* (2014) Kinetic studies of inverse electron demand Diels-Alder reactions (IEDDA) of norbornenes and 3,6-dipyridin-2-yl-1,2,4,5-tetrazine. *Tetrahedron Lett* **55**(34):4763.

Lukesch, M. (2019) Novel amino acids bearing a norbornene moiety. U.S. Patent WO2019016354A1.