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产品名称：O-Propargyl-Puromycin
产品别名：O-Propargylpuromycin

生物活性：

Description	O-Propargyl-Puromycin, an alkyne analog of puromycin, is a potent protein synthesis inhibitor.
In Vitro	O-propargyl-puromycin can be used to image and affinity-purify nascent proteins in cells and in animals. O-propargyl-puromycin inhibits protein synthesis, both in reticulocyte lysates and in cultured cells, displaying a potency two- to threefold lower than that of unmodified puromycin. O-propargyl-puromycin forms covalent conjugates with nascent polypeptide chains, which are rapidly turned over by the proteasome and can be visualized or captured by copper(I)-catalyzed azide-alkyne cycloaddition. [1].
In Vivo	Tissues from uninjected mice shows low nonspecific staining, whereas tissues from O-propargyl-puromycin-injected mice display specific patterns of O-propargyl-puromycin incorporation into nascent proteins. In the small intestine, translation is strongest in cells in the crypts and at the base of intestinal villi, consistent with the high proliferative and secretory activity of these cells. The stain is particularly strong in Paneth cells, which are located close to the base of the crypts and are filled with secretory vesicles. The intense O-propargyl-puromycin labeling of vesicles in Paneth cells suggests that prematurely terminated, O-propargyl-puromycin-conjugated secretory proteins are translocated into the endoplasmic reticulum (ER) lumen[1].
Solvent&Solubility	***In Vitro:*** **DMSO : ≥ 31 mg/mL (62.56 mM)** * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.0180 mL	10.0902 mL	20.1804 mL
5 mM	0.4036 mL	2.0180 mL	4.0361 mL
10 mM	0.2018 mL	1.0090 mL	2.0180 mL

*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液；一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。

储备液的保存方式和期限：-80°C, 6 months; -20°C, 1 month。-80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。

References	[1]. Liu J, et al. Imaging protein synthesis in cells and tissues with an alkyne analog of puromycin. Proc Natl Acad Sci U S A. 2012 Jan 10;109(2):413-8.

实验参考：

Animal Administration	Mice: 100 μL of a 20 mM solution of O-propargyl-puromycin in PBS are injected intraperitoneally into a 3-wk-old mouse, and a mouse injected with 100 μL of PBS is used as negative control. Various organs are harvested after 1 h and are fixed in formalin overnight. Organ fragments are embedded in paraffin, sectioned, and ished with xylene to remove the paraffin. After ishing with ethanol and rehydration in TBS, the tissue sections are stained with 20 μM tetramethylrhodamine(TMR)-azide. The tissue sections are counterstained with Hoechst, mounted in standard mounting media, and are then imaged by fluorescence microscopy and DIC[1].

References	[1]. Liu J, et al. Imaging protein synthesis in cells and tissues with an alkyne analog of puromycin. Proc Natl Acad Sci U S A. 2012 Jan 10;109(2):413-8.

源叶生物