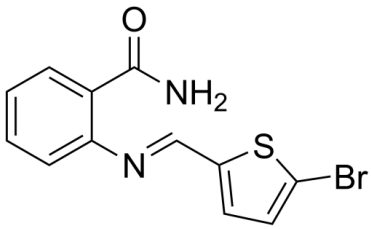
Data Sheet

Product Name:	BTYNB
Cat. No.:	CS-0086494
CAS No.:	304456-62-0
Molecular Formula:	$C_{12}H_9BrN_2OS$
Molecular Weight:	309.18
Target:	c-Myc
Pathway:	Apoptosis
Solubility:	DMSO : 62.5 mg/mL (202.15 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

BTYNB is a potent and selective inhibitor of **IMP1** binding to c-Myc mRNA (**IC_{50}**=5 μM). BTYNB exhibits selectivity and effectiveness against IMP1-postive cancer cell lines. BTYNB can be used for cancer research[1]. IC50 & Target: IC50: 5 μM (IMP1 c-Myc mRNA internation)[1] ***In Vitro:*** The oncofetal mRNA-binding protein, IMP1 binds to and stabilizes c-Myc, β-TrCP1, and other oncogenic mRNAs, it leads to increased expression of the proteins encoded by its target mRNAs[1].

BTYNB (10 uM; 0.5-1 hour) enhances the degradation rate of c-Myc mRNA in SK-MEL2 cells[1].

BTYNB (10-40 uM; 72 hours) degrades c-Myc expression in a dose-dependent manner in SK-MEL2 cells[1].

BTYNB (10-40 uM; 72 hours) decreases IMP1 expression in a dose-dependent manner in SK-MEL2 cells[1].

BTYNB (1-40 μM; 72 hours) decreases levels of CDC34, CALM1, β-TRCP1, and Col5A1 mRNAs expression in T47D/(A1-2) cells in the presence of hormone[1].

BTYNB elicits a robust dose-dependent inhibition of cell proliferation in IMP1-positive cells with IC_{50} of 2.3 μM, 3.6 μM, and 4.5 μM in ES-2, IGROV-1, and SK-MEL2 cells, respectively. BTYNB has no effects on IMP1-negative cells and demonstrates no inhibition of cell proliferation at all concentrations tested, including 50 μM[1].

References:

[1]. Lily Mahapatra,et al. A Novel IMP1 Inhibitor, BTYNB, Targets c-Myc and Inhibits Melanoma and Ovarian Cancer Cell Proliferation. Transl Oncol

CAIndexNames:

Benzamide, 2-[[(5-bromo-2-thienyl)methylene]amino]-

SMILES:

O=C(C1=CC=CC=C1/N=C/C2=CC=C(S2)Br)N

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