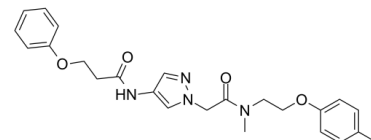


Data Sheet

Product Name:	IXA4
Cat. No.:	CS-0182059
CAS No.:	1185329-96-7
Molecular Formula:	C ₂₄ H ₂₈ N ₄ O ₄
Molecular Weight:	436.50
Target:	IRE1
Pathway:	Cell Cycle/DNA Damage
Solubility:	DMSO : 100 mg/mL (229.10 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

IXA4 is a highly selective, non-toxic **IRE1/XBP1s** activator. IXA4 activates IRE1/XBP1s signaling without globally activating the unfolded protein response (UPR) or other stress-responsive signaling pathways (e.g., the heat shock response or oxidative stress response). IXA4 reduces secretion of APP through IRE1 activation^[1]. **In Vitro:** IXA4 (10 μM; 4 hours) selectively upregulates XBP1s mRNA, relative to genes regulated by ATF6 (e.g., BiP) or PERK (e.g., CHOP), in other cell lines including Huh7 and SHSY5Y cells^[1]. IXA4 (10 μM; 18 hours) reduces Aβ levels 50% in conditioned media prepared on CHO7PA2 cells expressing the V717F APP (APPV717F) mutant^[1].

IXA4 rescues mitochondrial defects in SH-SY5Y cells expressing disease-relevant APP mutants. IXA4 (10 μM; 4 hours) promotes adaptive IRE1/XBP1s signaling, but not RIDD, following 4 hrs of treatment in HEK293T cells^[1].

IXA4 also promotes selective transcriptional remodeling of ER proteostasis pathways, relative to cytosolic or mitochondrial pathways^[1].

References:

[1]. Grandjean JMD, et al. Pharmacologic IRE1/XBP1s activation confers targeted ER proteostasis reprogramming. Nat Chem Biol. 2020;16(10):1052-1061.

CAIndexNames:

1H-Pyrazole-1-acetamide, N-methyl-N-[2-(4-methylphenoxy)ethyl]-4-[(1-oxo-3-phenoxypropyl)amino]-

SMILES:

O=C(N(C)CCOC1=CC=C(C)C=C1)CN2N=CC(NC(CCOC3=CC=CC=C3)=O)=C2

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 610-426-3128

Fax: 888-484-5008

E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA