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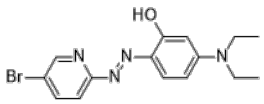
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	ENDO3
Cat. No.	:	PC-26477
CAS No.	:	2919814-58-5
Molecular Formula	:	$C_{15}H_{17}BrN_4O$
Molecular Weight	:	349.23
Target	:	Toll-like Receptor (TLR)
Solubility	:	10 mM in DMSO



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Biological Activity

ENDO3 is a specific small-molecule inhibitor of syntaxin 7 (STX7)-Munc13-4 interaction, selectively blocks endosomal TLRs (eTLRs) endosomal signaling, inhibits CD40 mobilization in Cal1 cells stimulated with CpG with IC50 of 0.12 uM, directly binds to recombinant STX7 with SPR KD of 3.13 uM.
ENDO3 specifically inhibits activation through CpG but does not inhibit exocytosis through plasma membrane ligands.
ENDO3 inhibits STX7–MUNC-13-4 binding but is negative in TR-FRET counterscreens using MUNC13-4 and Rab11 or Rab27a.
ENDO3 does not affect the binding of STX7 to the SNARE protein VAMP8.
ENDO3 significantly decreases the upregulation of CD40 in response to CpG in pDCs.
ENDO3 decreases the detection of phosphorylated IRF7 in Cal1 cells in a time-dependent manner, inhibits CpG–TLR9 downstream signaling.
ENDO3 inhibits ERK phosphorylation in wild-type neutrophils stimulated with CpG.
ENDO3 blocks TLR9-driven activation but spare exocytosis.
ENDO3 blocks endolysosomal flux and in vivo CpG-driven IL-6, significantly prevents the increase in IL-6 plasma levels induced by CpG in mice.

References

Jennifer L Johnson, et al. Nat Chem Biol. 2026 Apr 6. doi: 10.1038/s41589-026-02181-6.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

E-mail: tech@probechem.com