Data Sheet (Cat.No.T9901A-1775)

TargetMol

MNAC13

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Store at low temperature
Store at -20°C
Actual storage temperature shall be subject to the COA.

Biological Description

Description	MNAC13 is a chimeric mouse IgG1 antibody targeting human TrkA. By specifically binding to the TrkA receptor, MNAC13 inhibits NGF-dependent signaling pathways. It demonstrates effective and lasting analgesic properties, making MNAC13 suitable for research on inflammation and chronic pain.
Targets(IC50)	Trk receptor
In vitro	MNAC13 (200-300 μg/mL, 1 hour) specifically binds to TrkA in 3T3 cells overexpressing TrkA, inhibiting NGF-dependent signaling. At a concentration of 4 μg/mL for 4 days, MNAC13 effectively blocks NGF-induced cell survival and axon growth in PC12 cells. Additionally, MNAC13 (2 or 20 ng/mL) specifically binds TrkA immunoadhesin in TrkA BALB/C 3T3 cells without binding to TrkB.
In vivo	MNAC13 administered via intraperitoneal (0.9-60 μg) or subcutaneous injection, 18 hours prior to the formalin test, significantly reduced inflammatory pain in CD1 male mice injected with a 5% formalin solution. In cases of chronic constriction injury (CCI) in CD1 male mice, MNAC13 given intraperitoneally (30-70 μg, once daily from day 3 to day 10) markedly alleviated neuropathic pain with lasting effects. When used alongside opioids, a single intraperitoneal dose of MNAC13 (1 μg, given 15 minutes before the test) produced significant synergistic analgesic effects in CD1 male mice injected with 5% formalin solution. In Wistar rats injected with MNAC13 hybridoma cells, MNAC13 more effectively and durably blocked the impact of TrkA on BFCNs compared to NGF.

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