MCE MedChemExpress®

Elezanumab

Cat. No.:	HY-P99359
CAS No.:	1791416-49-3
Target:	TGF-beta/Smad
Pathway:	Stem Cell/Wnt; TGF-beta/Smad
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Elezanumab (ABT-555; AE12-1Y-QL) is a human monoclonal antibody that selectively targets repulsive guidance molecule A (RGMa). Elezanumab potently inhibited RGMa mediated BMP signalling via the SMAD1/5/8 pathway, with an IC$_{50}$ around 97 pM. Elezanumab promotes neuroregeneration and neuroprotection in neuronal injury and demyelination models binds N-terminal RGMa, blocks BMP signaling and lacks RGMc cross-reactivity. elezanumab has neuroregenerative and neuroprotective activities without impact on iron metabolism[1][2].
In Vivo	Elezanumab (ABT-555; AE12-1Y-QL; 1-10 mg/kg; IV; once a week for 5 doses) promotes axonal regeneration and prevents retinal nerve fiber layer degeneration in the optic nerve crush and optic neuritis models (female Lewis rats)[1]. Elezanumab (0.01, 0.1, 1, 10 mg/kg; IV; once a week for 3 doses) promotes axonal regeneration and remyelination, decreases inflammatory lesion area and improves functional recovery in the spinal targeted experimental autoimmune encephalomyelitis (EAE) model (female Lewis rats)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Female Lewis rat optic neuritis models[1]
Dosage:	1, 3, or 10 mg/kg
Administration:	IV; once a week for 5 doses
Result:	Protected against the optic nerve inflammationinduced RNFL degeneration. Showed significant protection of the RNFL, as demonstrated by decreased reduction in RNFL thickness measured by optical coherence tomography (OCT) with 10 mg/kg

REFERENCES

[1]. Lili Huang, et al. Elezanumab, a clinical stage human monoclonal antibody that selectively targets repulsive guidance molecule A to promote neuroregeneration and neuroprotection in neuronal injury and demyelination models. Neurobiol Dis. 2021 Nov;159:105492.

[2]. Lili Huang, et al. Elezanumab, a clinical stage human monoclonal antibody that selectively targets repulsive guidance molecule A to promote neuroregeneration and neuroprotection in neuronal injury and demyelination models. Neurobiol Dis. 2021 Nov;159:105492.

[3]. Peer B Jacobson, et al. Elezanumab, a human anti-RGMa monoclonal antibody, promotes neuroprotection, neuroplasticity, and neurorecovery following a thoracic

hemicompression spinal cord injury in non-human primates. Neurobiol Dis. 2021 Jul;155:105385.

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