Data Sheet (Cat.No.TMPY-01364)

TargetMol

AXL Protein, Mouse, Recombinant (His)

General Information

Synonyms: Ark;AXL receptor tyrosine kinase;Ufo;Tyro7;AI323647

Protein Construction: His20-Trp445

Species: Mouse

Expression Host: HEK293 Cells

Accession: Q00993

Molecular Weight: 47.8 kDa (predicted); 68-78 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity: AXL Protein, Mouse, Recombinant (His) immobilized on CM5 Chip can bind Mouse GAS6, His Tag with an affinity constant of 15.62 nM as determined in SPR assay (Biacore T200).

Purity: > 98 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU/μg of the protein as determined by the LAL method.

Formulation: Lyophilized from 0.22μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Preparation and Storage

Reconstitution:

Centrifuge the tube before opening. Reconstituting to a concentration more than 100 μg/ml is recommended. Dissolve the lyophilized protein in distilled water.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Axl receptor tyrosine kinase, together with Tyro3 and Mer, constitute the TAM family of receptor tyrosine kinases. In the nervous system, Axl and its ligand Growth-arrest-specific protein 6 (Gas6) are expressed on multiple cell types. Axl functions in dampening the immune response, regulating cytokine secretion, clearing apoptotic cells and debris, and maintaining cell survival. Axl is upregulated in various disease states, such as in the cuprizone toxicity-induced model of demyelination and in multiple sclerosis (MS) lesions, suggesting that it plays a role in disease pathogenesis. Axl expression correlates with poor prognosis in several cancers. Axl mediates multiple oncogenic

phenotypes and activation of these RTKs constitutes a mechanism of chemoresistance in a variety of solid tumors. Axl contributes to cell survival, migration, invasion, metastasis and chemosensitivity justify further investigation of Axl as novel therapeutic targets in cancer. The receptor tyrosine kinase AXL is thought to play a role in metastasis. The soluble AXL receptor as a therapeutic candidate agent for treatment of metastatic ovarian cancer. GAS6/AXL targeting as an effective strategy for inhibition of metastatic tumor progression in vivo.

Reference

Weinger JG,et al.(2011) Loss of the receptor tyrosine kinase Axl leads to enhanced inflammation in the CNS and delayed removal of myelin debris during Experimental Autoimmune Encephalomyelitis. J Neuroinflammation. 8: 49.

Linger RM,et al.(2010) Taking aim at Mer and Axl receptor tyrosine kinases as novel therapeutic targets in solid tumors. Expert Opin Ther Targets. 14(10): 1073-90.

Cavet ME,et al.(2010) Gas6-Axl pathway: the role of redox-dependent association of Axl with nonmuscle myosin IIB. Hypertension. 56(1): 105-11.

Rankin EB,et al.(2010) AXL is an essential factor and therapeutic target for metastatic ovarian cancer. Cancer Res. 70(19): 7570-9.