

Human AIM2 Protein (GST Tag)

Catalog Number: 11654-H09B



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

PYHIN4; Gm1313; Ifi210

Protein Construction:

A DNA sequence encoding the human AIM2 (NP_004824.1) (Met 1-Thr 343) was fused with the GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to inhibit the proliferation of MCF7 human breast adenocarcinoma cells (Karey, K.P. et al. (1988) Cancer Research 48:4083.). The ED₅₀ for this effect is typically 4-7 µg/ml.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human AIM2/GST chimera consists of 567 amino acids and predicts a molecular mass of 65.2 kDa as estimated in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 50mM Tris, 1M NaCl, 0.5mM PMSF, 5mM GSH, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

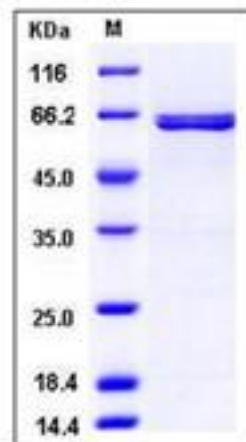
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

AIM2, Absent In Melanoma 2 is a member of the interferon-inducible HIN-200 protein family that contains an amino-terminal pyrin domain and a carboxy-terminal oligonucleotide/oligosaccharide-binding domain, senses cytoplasmic DNA by means of its oligonucleotide/oligosaccharide-binding domain and interacts with ASC (apoptosis-associated speck-like protein containing a CARD) through its pyrin domain to activate caspase-1. In response to foreign cytoplasmic DNA, AIM2 forms an inflammasome, resulting in caspase activation in inflammatory cells. It had been pointed to a role of AIM2 function in both inflammation and cancer. AIM-2 antigen is expressed in a wide variety of tumor types, including neuroectodermal tumors, as well as breast, ovarian and colon carcinomas. AIM-2 could be used as a tumor antigen target for monitoring vaccine trials or to develop antigen specific active immunotherapy for glioma patients.

References

1. Patos G, et al. (2010) Restoration of absent in melanoma 2 (AIM2) induces G2/M cell cycle arrest and promotes invasion of colorectal cancer cells. Int J Cancer. 126(8): 1838-49.
2. Fernandes-Alnemri T, et al. (2009) AIM2 activates the inflammasome and cell death in response to cytoplasmic DNA. Nature. 458(7237): 509-13.
3. Chen IF, et al. (2006) AIM2 suppresses human breast cancer cell proliferation in vitro and mammary tumor growth in a mouse model. Mol Cancer Ther. 5(1): 1-7.

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