Data Sheet (Cat.No.TMPH-01374)

TargetMol

Gasdermin-B Protein, Human, Recombinant (His & Myc)

General Information

Synonyms: GSDML;Gasdermin-like protein;Gasdermin-B;GSDMB

Protein Construction: 1-411 aa

Species: Human

Expression Host: E. coli

Accession: Q8TAX9

Molecular Weight: 54.2 kDa (predicted)

AA Sequence: MFSVFEEITRIVVKEMDAGGDMIAVRSLVDADRFRCFHLVGEKRTFFGCRHYTTGLTLMDILDTDGDKWLDEL DSGLQGQKAEFQILDNVDSTGELIVRLPKEITISGSFQGFHHQKIKISENRISQQYLATLENRKLKRELPFSFRSI NTRENLYLVTETLETVKEETLKSDRQYKFWSQISQGHLSYKHKGQREVTIPPNRVLSYRVKQLVFPNKETMSA GLDIHFRGKTKSFPEGKSLGSEDSRNMKEKLEDMESVLKDLTEEKRKDVLNSLAKCLGKEDIRQDLEQRVSEVL ISGELHMEDPDKPLLSSLFNAAGVLVEARAKAILDFLDALLELSEEQQFVAEALEKGTLPLLKDQVKSVMEQN WDELASSPPDMDYDPEARILCALYVVVSILLELAEGPTSVSS

QC Testing

Biological Activity: Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.

Purity: > 85% as determined by SDS-PAGE.

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

Formulation: If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

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

Precursor of a pore-forming protein that acts as a downstream mediator of granzyme-mediated cell death. This form constitutes the precursor of the pore-forming protein: upon cleavage, the released N-terminal moiety (Gasdermin-B, N-terminal) binds to membranes and forms pores, triggering pyroptosis.; Pore-forming protein produced by cleavage by granzyme A (GZMA), which causes membrane permeabilization and pyroptosis in target cells of cytotoxic T and natural killer (NK) cells. Key downstream mediator of granzyme-mediated cell death: (1) granzyme A (GZMA), delivered to target cells from cytotoxic T- and NK-cells, (2) specifically cleaves Gasdermin-B to generate this form. After cleavage, moves to the plasma membrane, homooligomerizes within the membrane and forms pores of 10-15 nanometers (nm) of inner diameter, triggering pyroptosis. Binds to membrane inner leaflet lipids, such as phosphatidylinositol 4-phosphate, phosphatidylinositol 5-phosphate, bisphosphorylated phosphatidylinositols, such as phosphatidylinositol (4,5)-bisphosphate, and more weakly to phosphatidic acid. Also binds sufatide, a component of the apical membrane of epithelial cells.

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