**Proteins** 

# **Product** Data Sheet

# Monoglyceride lipase Protein, Rat (P.pastoris, His)

Cat. No.: HY-P71755

Synonyms: Mgll; Mgl2; Monoglyceride lipase; MGL; Monoacylglycerol lipase; MAGL

Species:

Source: P. pastoris

Q8R431 (1M-303P) Accession:

Gene ID: 29254

Molecular Weight: Approximately 35.5 kDa

### **PROPERTIES**

AA Seq	uence
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MPEASSPRRT PQNVPYQDLP HLVNADGQYL FCRYWKPSGT PKALIFVSHG AGEHCGRYDE LAQMLKRLDM LVFAHDHVGH GQSEGERMVV SDFQVFVRDL LQHVNTVQKD YPEVPVFLLG HSMGGAISIL GMILISPLIL AAAERPTHFS ANPESASTLK VLAAKLLNFV LPNISLGRID SSVLSRNKSE VDLYNSDPLI CHAGVKVCFG IQLLNAVSRV ERAMPRLTLP FLLLQGSADR LCDSKGAYLL MESSPSQDKT LKMYEGAYHV LHKELPEVTN

SHRIAVAGARSVLHEINTWV CLP

# **Appearance**

Lyophilized powder.

#### Formulation

Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.

# **Endotoxin Level**

<1 EU/µg, determined by LAL method.

#### Reconsititution

It is not recommended to reconstitute to a concentration less than 100  $\mu$ g/mL in ddH<sub>2</sub>O.

#### Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

#### **Shipping**

Room temperature in continental US; may vary elsewhere.

# **DESCRIPTION**

# Background

Monoglyceride lipase (MGLL) is a pivotal enzyme with diverse functions in lipid metabolism and signaling pathways. It plays a central role in converting monoacylglycerides into free fatty acids and glycerol. Additionally, MGLL is involved in the hydrolysis of the endocannabinoid 2-arachidonoylglycerol, contributing to the regulation of endocannabinoid signaling and influencing nociperception and pain perception. Beyond its role in lipid metabolism, MGLL is implicated in the modulation of fatty acid levels, acting as signaling molecules that facilitate cancer cell migration, invasion, and tumor growth (By

similarity). The multifunctional nature of Monoglyceride lipase underscores its importance in various physiological processes, including lipid homeostasis, pain regulation, and potential implications in cancer progression.

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

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