AGER Protein, Cynomolgus (HEK293, His)

Cat. No.:	HY-P701085
Synonyms:	Advanced glycosylation end-product specific receptor; AGER; RAGE; SCARJ1
Species:	Cynomolgus
Source:	HEK293
Accession:	A0A2K5TSM4 (Q24-T354)
Gene ID:	/
Molecular Weight:	50-65 kDa

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	AGER protein serves as a cell surface pattern recognition receptor with a diverse ligand repertoire, encompassing advanced glycation end products, S100 proteins, high-mobility group box 1 protein/HMGB1, amyloid beta/APP oligomers, nucleic acids, phospholipids, and glycosaminoglycans. Notably, advanced glycosylation end products, which accumulate in vascular tissue during aging and diabetes, act as key ligands triggering inflammatory responses via RAGE. Upon ligand binding, AGER utilizes TIRAP and MYD88 as adapters to transduce signals, leading to the induction of inflammatory cytokines such as IL6, IL8, and TNFalpha through NF-kappa-B activation. AGER's interaction with S100A12 and S100B induces cellular activation, generating pro-inflammatory mediators and contributing to diverse processes, including myocardial infarction-induced apoptosis, amyloid-beta peptide translocation, endothelial albumin transcytosis, and extracellular vesicle-mediated delivery of HMGB1 to hepatocytes. Moreover, AGER participates in the uptake of extracellular hypomethylated DNA and can induce nuclear factor NF-kappa-B activation in response to advanced glycosylation end products. The multifaceted roles of AGER highlight its involvement in various pathological conditions, such as diabetes, vascular complications, neurodegenerative disorders, and cancer.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA