Data Sheet (Cat.No.TMPY-02839)

TargetMol

Adrenomedullin Protein, Human, Recombinant (hFc)

General Information

Synonyms:	AM;PAMP;adrenomedullin
Protein Construction:	A DNA sequence encoding the human ADM (P35318) (Tyr95-Tyr146) was expressed, with the fused Fc region of human IgG1 at the N-terminus. Predicted N terminal: Glu
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P35318
Molecular Weight:	38 kDa (predicted); 39 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 93 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

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

Adrenomedullin consists of 52 amino acids and is a member of the adrenomedullin family. It s a a hypotensive peptide and has 1 intramolecular disulfide bond. It seems that adrenomedullin has a slight homology with the calcitonin gene-related peptide. Adrenomedullin has a highly expression in pheochromocytoma and adrenal medulla. It also can be detected in lung, ventricle and kidney tissues. Adrenomedullin and PAMP are potent hypotensive and vasodilatator agents. Numerous actions have been reported most related to the physiologic

control of fluid and electrolyte homeostasis. In the kidney, adrenomedullin is diuretic and natriuretic, and both adrenomedullin and PAMP inhibit aldosterone secretion by direct adrenal actions. In pituitary gland, both peptides at physiologically relevant doses inhibit basal ACTH secretion. Both peptides appear to act in brain and pituitary gland to facilitate the loss of plasma volume, actions which complement their hypotensive effects in blood vessels. It is believed that adrenomedullin functions through combinations of the calcitonin receptor like receptor and receptor activity-modifying proteins complexes, as well as CGRP receptors.

Reference

Hao SL, et al. (2011) The antifibrosis effect of adrenomedullin in human lung fibroblasts. Exp Lung Res. 37(10): 615-26.

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Boc-Zalewska A, et al. (2011) Adrenomedullin mRNA expression in placenta of preeclamptic women. Ginekol Pol. 82(8):585-91.

Palladini G, et al. (2011) Midregional proadrenomedullin (MR-proADM) is a powerful predictor of early death in AL amyloidosis. Amyloid. 18(4):216-21.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481