

DESCRIPTION

Source Human embryonic kidney cell, HEK293-derived human Afamin protein
Leu22-Asn599, with a C-terminal 6-His tag
Accession # P43652

N-terminal Sequence Analysis Leu22

Predicted Molecular Mass 67 kDa

SPECIFICATIONS

SDS-PAGE 71-80 kDa

Activity Measured by its ability to bind Biotinylated Recombinant Mouse Wnt-3a (Catalog # [BT1324](#)) in a functional ELISA. The ED₅₀ for this effect is 0.8-6.4 µg/mL.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

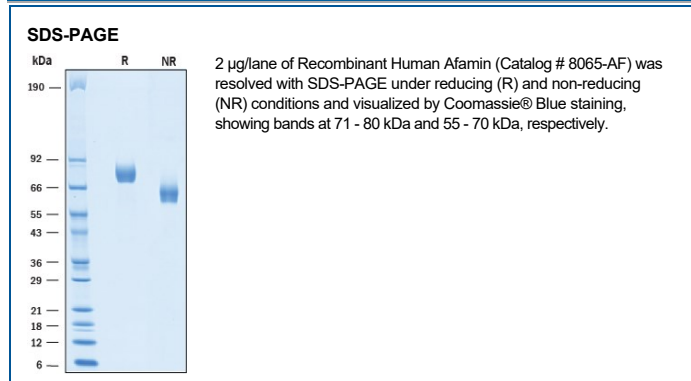
Reconstitution Reconstitute at 500 µg/mL in PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA



BACKGROUND

AFM (Afamin; also known as Alpha -Albumin) is a secreted monomeric glycoprotein of the Alb/Albumin family of molecules. It is expressed by hepatocytes (1), CNS endothelial cells (2) and osteoclasts (3), and circulates in the blood at low µg/mL concentrations. AFM is known to bind and transport vitamin E family molecules, playing an important role for transporting at the blood-brain-barrier (2). It also plays a role in maintaining solubility for transporting Wnt proteins (4, 5). AFM also serves as an osteoclast-derived chemoattractant for preosteoblasts, providing a rationale for the observation that bone formation often follows bone resorption (3). Mature human AFM is 578 amino acids (aa) in length (aa 22-599). It contains three consecutive albumin domains (aa 36-206, aa 211-403 and aa 404-599) that contain a characteristic 5 or 6 intrachain disulfide bonds. Full-length human AFM shares 66% aa sequence identity with mouse AFM and 67% aa sequence identity with rat AFM. The importance of Afamin in transport of molecules has led to a suggested diagnostic role in various diseases, including pre-eclampsia (6), ovarian cancer (7), and both gestational and type-2 diabetes (8, 9).

References:

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3. Kim, B.J. *et al.* (2012) *Bone.* **51**:431.
4. Naschberger, A. *et al.* (2017) *Structure.* **25**:1907.
5. Mihara, E. *et al.* (2016) *Elife.* **5**:11621.
6. Köninger, A. *et al.* (2018) *Arch Gynecol Obstet.* **298**(5):1009.
7. Aktas B. *et al.* (2013). *Anticancer Res.* **33**:329.
8. Tramontana A. *et al.* (2018) *Clin. Chim. Acta.* **476**:160.
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