

DESCRIPTION

Source Human embryonic kidney cell, HEK293-derived
His23-Cys132
Accession # P42127

N-terminal Sequence Analysis His23

Predicted Molecular Mass 12 kDa

SPECIFICATIONS

SDS-PAGE 18-23 kDa, reducing conditions

Activity Measured by its ability to inhibit alpha-MSH induced eumelanin production in B16F1 mouse melanoma cells. The ED₅₀ for this effect is typically 0.8-4 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

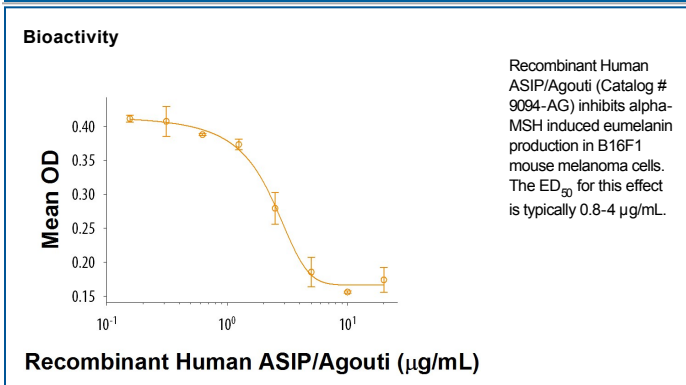
Reconstitution Reconstitute at 400 µg/mL in PBS.

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

Agouti, also known as Agouti Signaling Protein (ASIP), is a 132 amino peptide that regulates hair pigmentation in mice and adipocyte metabolism in humans (1). Mature human Agouti shares 78% and 76% amino acid sequence identity with mouse and rat Agouti, respectively (2, 3). Human Agouti is primarily expressed in adipose tissue, whereas its adipose expression in mice is only induced by mutations in the Agouti promoter (4, 5). Agouti is also expressed in the pancreas where it enhances the production of insulin by beta cells (6). Agouti functions as a competitive antagonist at several melanocortin receptors. It blocks ACTH binding to MC1R and MSH binding to MC1R, MC3R, and MC4R (7-9). It blocks MSH induced effects on melanocytes including proliferation and melanin production (3, 7, 8).

References:

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4. Mynatt, R.L. *et al.* (1997) *Proc. Natl. Acad. Sci. USA* **94**:919.
5. Mynatt, R.L. and J.M. Stephens (2001) *Am. J. Physiol. Cell Physiol.* **280**:C954.
6. Xue, B.Z. *et al.* (1999) *Physiol. Genomics* **1**:11.
7. Lu, D. *et al.* (1994) *Nature* **371**:799.
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