Recombinant KFA protein (His tag)

Catalog Number	549234
Synonyms	KFA; KFase; Arylformamidase; N-formylkynurenine formamidase; FKF
Species	Human
Expression System	E. coli
Accession	Q63HM1
Molecular Weight	Predictes a molecular mass of 35.65 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	1-303
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-303 aa (Q63HM1) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Kynurenine Formamidase (KFA) Fragment (1-303) is a high-purity protein designed for structural and biochemical studies. This fragment, derived from the AFMID gene, represents a stable and soluble unit that retains the enzyme's catalytic activity in hydrolyzing N-formyl-L-kynurenine to L-kynurenine, a key step in the kynurenine pathway of tryptophan metabolism. Kynurenine Formamidase (EC 3.5.1.9), also known as arylformamidase or N-formylkynurenine formamidase, is a critical enzyme in the kynurenine pathway of tryptophan degradation. It catalyzes the hydrolysis of N-formyl-L-kynurenine to L-kynurenine, which serves as a precursor for the synthesis of nicotinic acid, NAD(H), and NADP(H). This enzyme plays an essential role in eliminating toxic metabolites and maintaining cellular homeostasis. The full-length protein is predominantly localized in the cytoplasm (cytosol), with a fraction also present in the nucleus, suggesting potential regulatory functions in both compartments. The recombinant fragment (residues 1-303) encompasses the complete functional domain and was selected through computational analysis to ensure optimal stability and solubility for experimental applications.