Recombinant NHRF4 protein (His tag)

Catalog Number	543045
Synonyms	+; NHERF-4; Intestinal and kidney-enriched PDZ protein; Natrium-phosphate cotransporter IIa C-terminal-associated protein 2; Na/Pi cotransporter C-terminal-associated protein 2; NaPi-Cap2; PDZ domain-containing protein 2; PDZ domain-containing protein 3; Sodium-hydrogen exchanger regulatory factor 4
Species	Human
Expression System	E. coli
Accession	Q86UT5
Molecular Weight	Predictes a molecular mass of 35.99 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	112-428
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 112-428 aa (Q86UT5) 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 NHERF4 Protein Fragment (aa 112-428) - A high-purity protein fragment containing all three PDZ domains (PDZ 1, 2, and 3) of the Na(+)/H(+) exchange regulatory cofactor NHE-RF4. This carefully designed fragment serves as an essential tool for studying PDZ domain-mediated protein interactions and regulatory functions in intestinal and renal physiology. NHERF4 (Na(+)/H(+) exchange regulatory cofactor 4) is a key regulatory protein that plays crucial roles in intestinal and kidney function. The full-length protein acts as a negative modulator of GUCY2C receptor activation in response to heat-stable enterotoxin and stimulates SLC9A3 (sodium-hydrogen exchanger 3) activity under elevated calcium conditions. NHERF4 is primarily localized to the cell membrane as a peripheral membrane protein, with preferential accumulation at the apical surface and ileal brush border of intestinal epithelial cells, with additional presence in the cytoplasm. This strategic localization positions NHERF4 as a critical regulator of membrane transport processes and signaling pathways in epithelial tissues.