# Recombinant SL9A4 protein (His tag)

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| **Catalog Number** | 538243 |
| **Synonyms** | Na(+)/H(+) exchanger 4; NHE-4; Solute carrier family 9 member 4 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q6AI14 |
| **Molecular Weight** | Predictes a molecular mass of 16.51 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band. |

## Product Information

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| **Sequence Region** | 472-598 |
| **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 472-598 aa (Q6AI14) were fused with 6His tag. |

## Storage & Handling

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| **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.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | This recombinant protein product features a 127-amino acid fragment (residues 472-598) of human Sodium/hydrogen exchanger 4 (NHE-4), encoded by the SLC9A4 gene. The fragment represents a stable, soluble region ideal for structural studies, biochemical assays, and functional investigations of this critical membrane transporter involved in pH regulation and ion homeostasis.<br>Sodium/hydrogen exchanger 4 (NHE-4) is an electroneutral antiporter that facilitates the exchange of sodium ions for protons or ammonium ions across cellular membranes. It plays essential roles in regulating cell volume, intracellular pH under hypertonic conditions, and renal acid excretion through basolateral ammonium extrusion in the medullary thick ascending limb. In gastric parietal cells, NHE-4 mediates sodium:proton exchange secondary to cAMP-dependent acid secretion and hyperosmolarity, contributing to normal gastric acid secretion. Additionally, it functions as a sodium sensor in neurons of the organum vasculosum of the lamina terminalis, regulating water intake in response to elevated sodium concentrations. The protein localizes to basolateral and apical cell membranes, as well as zymogen granule membranes, with tissue-dependent enrichment, and is a multi-pass membrane protein integral to epithelial ion transport and systemic pH balance. |