

GAP43 Protein, Human (HEK293, His)

Cat. No.:	HY-P75175
Synonyms:	Neuromodulin; pp46; GAP43; B-50
Species:	Human
Source:	HEK293
Accession:	P17677 (M1-A238)
Gene ID:	2596
Molecular Weight:	Approximately 47 kDa

PROPERTIES

Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μ m filtered solution of PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>GAP43 protein is intricately associated with nerve growth, emerging as a major component within the motile 'growth cones' that form at the tips of elongating axons. Its pivotal role extends to the induction of axonal and dendritic filopodia, contributing to the dynamic processes crucial for nerve development. Within a molecular context, GAP43 is identified in a complex containing FGFR4, NCAM1, CDH2, PLCG1, FRS2, SRC, SHC1, and CTTN, suggesting its participation in diverse signaling pathways. Additionally, GAP43 exhibits interactions with calmodulin, mediated by its IQ domain, binding calmodulin with greater affinity in the absence of Ca²⁺ than in its presence. These intricate molecular associations underscore the multifaceted involvement of GAP43 in nerve growth and signaling cascades, shedding light on its significance in orchestrating axonal dynamics and filopodia formation.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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