

FGF14 Protein, Canine

Cat. No.:	HY-P77365
Synonyms:	Fibroblast growth factor 14; FHF-4; FGF14
Species:	Canine
Source:	E. coli
Accession:	XP_003363267 (K64-T252)
Gene ID:	100050897
Molecular Weight:	Approximately 21 kDa

PROPERTIES

AA Sequence	<p> KNKNPTDPQL KGIVTRL YCR QGY YLQMHPD GALDGTKD DS TNSTLFNLIP VGLRVVAIQG VKTGLYIAMN GEGYLYPSEL FTPECKFKES VFENYV IYS SMLYRQ QESG RAWFLGLNKE GQVMKGNRVK KTKPAAHFLP KPLEVAMYRE PSLHDVGETV PKAGVTPSKS TSASAIMNGG KPVNKS KTT </p>
Biological Activity	Measured by its binding ability in a functional ELISA. When Recombinant Canine FGF14 is present at 2 µg/mL, can bind Recombinant Human FGFR4. The ED ₅₀ for this effect is 299.1 ng/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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	Fibroblast growth factor 14 is a bioactive protein found in the brain and pituitary gland that promotes fibroblast growth and is involved in embryonic development, angiogenesis, tissue repair and other processes. As a member of the FGF homologous factor family, FGF14 is expressed in the developing and mature nervous system and maintains normal nervous system function by regulating the plasticity and excitability of neurons. Mutations in the FGF14 gene are responsible for the
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neurodegenerative spinocerebellar ataxia (SAC27), and FGF14 deficiency impairs the maturation of cells in the hippocampal dentate gyrus, which may lead to schizophrenia. FGF14 plays a neuroprotective role in in vitro Alzheimer's disease (AD) models by inhibiting MAPK signaling^{[1][2][3]}.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA