

Datasheet: PHP105

Description:	RECOMBINANT HUMAN FGF BASIC
Name:	FGF BASIC
Other names:	FGF2
Format:	Rec. Protein
Product Type:	Recombinant Protein
Quantity:	50 µg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
ELISA	▪			0.2 - 0.4 ng/well
Western Blotting	▪			1.5 - 3.0 ng/lane
Functional Assays	▪			0.1 - 10 ng/ml

Where this protein has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the protein for use in their own system using appropriate negative/positive controls.

Target Species	Human
Product Form	Purified recombinant protein expressed in <i>E. coli</i> - lyophilised
Reconstitution	Reconstitute with 0.5ml Tris (5mM, pH7.6). Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution. Further dilutions may be prepared in a buffer containing a carrier protein (eg 0.1% BSA).
Buffer Solution	TRIS buffered saline.
Preservative Stabilisers	None present
Endotoxin Level	<0.1ng/ug
Approx. Protein Concentrations	Total protein concentration 0.1 mg/ml after reconstitution.
External Database Links	UniProt: P09038 Related reagents Entrez Gene:

Synonyms	FGFB
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Product Information	<p>Recombinant Human FGF basic represents the C-terminal portion of human fibroblast growth factor 2 (A¹³⁵ - S²⁸⁸).</p> <p>Fibroblast growth factor basic (FGF basic), also known as FGF 2, is a heparin binding growth factor which has stimulatory activity on a range of cells of mesenchymal, neuroectodermal and endothelial origin.</p> <p>Note: FGF basic is sensitive to acidic conditions.</p>
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Protein Molecular Weight	17.2kD (154 amino acid sequence)
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Activity	2 x 10 ⁶ units/mg
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Purity	>95% by SDS PAGE and HPLC analysis
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ELISA	This product may be used as a standard for ELISA applications with either AHP1038 or AHP1038B .
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Western Blotting	This product may be used as the positive control for Western Blot applications with either AHP1038 or AHP1038B .
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References	<ol style="list-style-type: none">1. Svendsen, C.N. <i>et al.</i> (1997) Long-term survival of human central nervous system progenitor cells transplanted into a rat model of Parkinson's disease. Exp Neurol. 148: 135-46.2. Kim, T.H. <i>et al.</i> (2005) Recombinant human prothrombin kringle-2 induces bovine capillary endothelial cell cycle arrest at G0-G1 phase through inhibition of cyclin D1/CDK4 complex: modulation of reactive oxygen species generation and up-regulation of cyclin-dependent kinase inhibitors. Angiogenesis. 8: 307-14.3. van Beuningen, HM <i>et al.</i> (2014) Inhibition of TAK1 and/or JAK can rescue impaired chondrogenic differentiation of human mesenchymal stem cells in osteoarthritis-like conditions. Tissue Eng Part A. 20 (15-16): 2243-52.4. Pleumeekers, M.M. <i>et al.</i> (2014) The <i>in vitro</i> and <i>in vivo</i> capacity of culture-expanded human cells from several sources encapsulated in alginate to form cartilage. Eur Cell Mater. 27: 264-80.5. Willems, N. <i>et al.</i> (2015) Intradiscal application of rhBMP-7 does not induce regeneration in a canine model of spontaneous intervertebral disc degeneration. Arthritis Res Ther. 17: 137.6. Pleumeekers, M.M. <i>et al.</i> (2015) Cartilage regeneration in the head and neck area: Combination of ear or nasal chondrocytes and mesenchymal stem cells improves cartilage production: Cell combinations for cartilage production. Plast Reconstr Surg. Aug 10. [Epub ahead of print]7. Dimitrellos, V. <i>et al.</i> (2003) Capillary electrophoresis and enzyme solid phase assay for examining the purity of a synthetic heparin proteoglycan-like conjugate and identifying binding to basic fibroblast growth factor. Biomed Chromatogr. 17 (1): 42-7.8. Narcisi R <i>et al.</i> (2015) Long-term expansion, enhanced chondrogenic potential, and suppression of endochondral ossification of adult human MSCs via WNT signaling modulation. Stem Cell Reports. 4 (3): 459-72.9. Lolli A <i>et al.</i> (2016) Silencing of anti-chondrogenic microRNA-221 in human mesenchymal stem cells promotes cartilage repair <i>in vivo</i>. Stem Cells. Mar 1. [Epub ahead of print]10. de Kroon, L. M. G. <i>et al.</i> (2016) Activin and Nodal Are Not Suitable Alternatives to TGF for Chondrogenic Differentiation of Mesenchymal Stem Cells Cartilage. Sep 7 [Epub ahead of print]11. Cleary, M.A. <i>et al.</i> (2016) Expression of CD105 on expanded mesenchymal stem cells does not
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Storage

Prior to reconstitution store at +4°C. Following reconstitution store at -20°C.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the protein. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

3 months from date of reconstitution.

Health And Safety Information

Material Safety Datasheet documentation available at:
 Material Safety Datasheet Documentation #10308 available at:
<https://www.bio-rad-antibodies.com/uploads/MSDS/10308.pdf>

Regulatory

For research purposes only

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