Product Data Sheet

Recombinant Human / Mouse / Rat BMP-2
Catalog Number: 800-02

Product Description

Alternate Names: BMP-2A
Accession Number: P12643 / P21274 / P49001

Description: Bone morphogenetic protein 2 (BMP-2) is a member of the bone morphogenetic protein (BMP) family and functions as a potent inducer of bone and cartilage development. BMP proteins are synthesized as large precursor molecules which are cleaved by proteolytic enzymes. Active BMP-2 consists of forming a homodimer or a heterodimer with a related BMP, such as BMP-7. BMP-2 signals through type I and type II receptor tyrosine kinases in conjunction with SMAD proteins to directly promote osteoblast differentiation. BMP-2 is also important during cardiac development and supports epicardial cell migration.

Source: Genetically modified E.coli.

Predicted MW: Dimer, 13.0/26.1 kDa (with 115/230 amino acids)

AA Sequence: MQAKHKQRKR LKSSCKRHPL YVDFSDVGWN DWIVAPPGYH AFYCHGECPF PLADHLNSTN HAIVQTLVNS VNSKIPKACC VPTELSAISM LYLDENEKVV LKNYQDMVVE GCGCR

Formulation: Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)

Product Specifications*

*Lot-specific values for the following specifications are supplied with each production lot on its corresponding COA.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Method of Determination</th>
<th>Acceptance Criteria</th>
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<tbody>
<tr>
<td>Purity</td>
<td>Reducing and Non-Reducing SDS-PAGE</td>
<td>≥ 95%</td>
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<tr>
<td>Endotoxin</td>
<td>Kinetic LAL (50% confidence)</td>
<td>≤ 1 EU/µg</td>
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<tr>
<td>Biological Activity</td>
<td>Alkaline phosphatase activity induced in ATDC-5 cells</td>
<td>ED50 ≤ 250 ng/mL (≥ 4.0 x 10^3 units/mg)</td>
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Product Preparation and Storage

Country of Origin: USA
Shipping: Room temperature
Storage Prior to Reconstitution: -20°C
Product Reconstitution: Sterile water at 0.1 mg/mL
Instructions: Centrifuge vial before opening. Suspend the product by gently pipetting the above recommended solution down the sides of the vial. DO NOT VORTEX. Allow several minutes for complete reconstitution. For prolonged storage, dilute to working aliquots in a 0.1% BSA solution, store at -80°C and avoid repeat freeze thaws.

Expiration Date:
12 months from date of receipt when stored at -20°C to -80°C as supplied.
1 month when stored at 4°C after reconstituting as directed.
3 months when stored at -20°C to -80°C after reconstituting as directed.

THIS PRODUCT IS FOR RESEARCH USE ONLY AND IS NOT FOR USE IN HUMANS!