

**Datasheet for KOA0151****Rat BMP-2 ELISA Kit****Overview**

|                      |                                          |
|----------------------|------------------------------------------|
| <b>Description:</b>  | Rat BMP-2 AccuSignal ELISA Kit - KOA0151 |
| <b>Item No.:</b>     | KOA0151                                  |
| <b>Size:</b>         | 1 Kit                                    |
| <b>Applications:</b> | ELISA                                    |
| <b>Reactivity:</b>   | Rat                                      |
| <b>Range:</b>        | 62.5 pg/ml - 4000 pg/ml                  |

**Product Details**

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>         | Bone morphogenetic protein-2(BMP-2, BMP 2A) belongs to the transforming growth factor beta (TGF-beta) superfamily. It is thought to be involved in cartilage and bone formation during embryogenesis, but may have additional functions in morphogenesis as implied by its expression in various organs and embryonic tissues of mice. BMP-2 has been identified as a candidate mediator of retinoid activity. BMP-2 protein induces medulloblastoma cell apoptosis, whereas the BMP-2 antagonist noggin blocks both retinoid and BMP-2-induced apoptosis. BMP-2 also induces p38 mitogen-activated protein kinase(MAPK), which is necessary for BMP-2 and retinoid-induced apoptosis. Bone morphogenic proteins(BMPs) are known to promote osteogenesis, and clinical trials are currently underway to evaluate the ability of certain BMPs to promote fracture-healing and spinal fusion. The standard product used in this kit is recombinant rat BMP-2, constituting dimer by two chains of 114 amino acids with the molecular mass of 26KDa. |
| <b>Synonyms:</b>           | BDA2, BMP-2, BMP-2A, Bmp2, BMP2_HUMAN, BMP2A, Bone morphogenetic protein 2, Bone morphogenetic protein 2A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Detection Kit Type:</b> | ELISA Kit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Detection Range:</b>    | 62.5 pg/ml - 4000 pg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Sensitivity:</b>        | <2 pg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

**Target Details**

|                    |      |
|--------------------|------|
| <b>Gene Name:</b>  | BMP2 |
| <b>Reactivity:</b> | Rat  |

|                            |                                                                                                                                                                                                                       |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Immunogen:</b>          | Expression system for standard:CHO ; Immunogen sequence: Q283-R396                                                                                                                                                    |
| <b>Purity/Specificity:</b> | Natural and recombinant rat BMP-2. There is no detectable cross-reactivity with other relevant proteins.                                                                                                              |
| <b>Relevant Links:</b>     | <ul style="list-style-type: none"><li>• <a href="#">UniProtKB - P49001</a></li><li>• <a href="#">NCBI - NP_058874.1</a></li><li>• <a href="#">GeneID - 29373</a></li><li>• <a href="#">KOA0151 Protocol</a></li></ul> |

## Application Details

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tested Applications:</b> | ELISA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Application Note:</b>    | Useful in Sandwich ELISA for Quantitative Detection of Antigen. Aliquot 0.1ml per well of the 4000pg/ml, 2000pg/ml, 1000pg/ml, 500pg/ml, 250pg/ml, 125pg/ml, 62.5pg/ml rat BMP-2 standard solutions into the precoated 96-well plate. Add 0.1ml of the sample diluent buffer into the control well (Zero well). Add 0.1ml of each properly diluted sample of rat bone tissue, cell culture supernates or serum to each empty well. It is recommended that each rat BMP-2 standard solution and each sample be measured in duplicate. |
| <b>Assay Dilutions:</b>     | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.                                                                                                                                                                                                                                                                                                                                                                                                                                      |

## Formulation

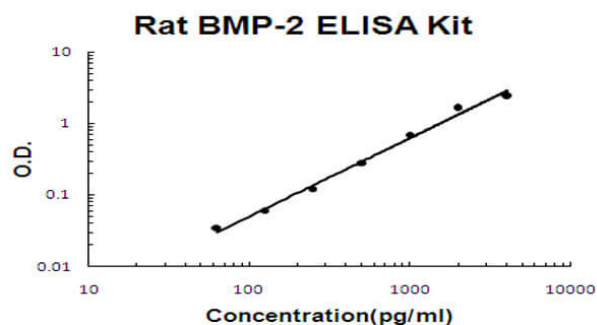
## Shipping & Handling

|                            |                                                                                                                                                                                                                                                                                                                               |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Shipping Condition:</b> | Wet Ice                                                                                                                                                                                                                                                                                                                       |
| <b>Storage Condition:</b>  | Store vials at 4°C prior to opening. Centrifuge product if not completely clear after standing at room temperature. This product is stable for 6 months at 4°C as an undiluted liquid. Dilute only prior to immediate use. For extended storage freeze at -20°C or below for 12 months. Avoid cycles of freezing and thawing. |
| <b>Expiration:</b>         | See kit insert for complete instructions.                                                                                                                                                                                                                                                                                     |

## Images

**ELISA**

Rat BMP-2 AccuSignal ELISA Kit standard curve. Assay  
Range: 62.5pg/ml-4000pg/ml. Sensitivity: <2pg/ml.

**Disclaimer**

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.