

Technology Offer

Highly-sensitive, highly-specific recombinant BMP-2 and BMP-14 antibodies

Reference Number 10-00064

Challenge

Bone morphogenetic proteins (BMPs) are major contributors to bone formation and further participate in organ and tissue development. BMP-2 has been granted market approval for orthopedic applications and in that context is applied locally using a carrier material. The therapeutic application requires precise monitoring of the BMP-starting dosage and release over time. Although some monoclonal antibodies directed against BMP-2 and BMP-14 are available, these suffer from different drawbacks such as insufficient specificity for the homodimeric form of biologically active BMPs or inadequate selectivity over related BMP species. Therefore, there is an unmet demand for highly sensitive antibodies discriminating between BMP-2 or BMP-14 homodimers and monomers with high specificity.

Technology

Provided are two different recombinant antibodies highly specific for the functional homodimeric form of human BMP-2 and BMP-14. The detection limit of the offered BMP antibodies is about 100 fold lower than that of available antibodies. No cross-reactivity between related BMPs was observed. As the VHH-domains have been sequenced (sequences not published), they can be produced by recombinant expression at competitive prices.

Commercial Opportunity

The respective recombinant BMP-2 and BMP-14 antibodies are suitable for the development of research tools or for diagnostic kits and are offered for licensing.