## Recombinant Mouse Exostosin-Like 2/EXTL2 Protein (His Tag)

#### Catalog No. PKSM041014

*Note:* Centrifuge before opening to ensure complete recovery of vial contents.

| Description                 |  |
|-----------------------------|--|
| Synonyms                    | Exostosin-like 2;Extl2;Alpha-1;4-N-acetylhexosaminyltransferase EXTL2;Alpha-<br>GalNAcT EXTL2;EXT-related protein 2;Glucuronyl-galactosyl-proteoglycan<br>4-alpha-N-acetylglucosaminyltransferase  |
| Species                     | Mouse  |
| Expression Host             | HEK293 Cells   |
| Sequence                    | Asn43-Met330   |
| Accession                   | Q9ES89   |
| Calculated Molecular Weight | 33.6 kDa   |
| Observed molecular weight   | 35 kDa   |
| Tag                         | N-His  |
| Bioactivity                 | Not validated for activity   |
| Properties                  |  |
| Purity                      | > 95 % as determined by reducing SDS-PAGE.   |
| Endotoxin                   | < 1.0 EU per µg of the protein as determined by the LAL method.  |
| Storage                     | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.                                  |
| Shipping                    | This product is provided as lyophilized powder which is shipped with ice packs.  |
| Formulation                 | Lyophilized from a 0.2 µm filtered solution of 20mM Tris-HCl, 150mM NaCl, pH 8.0.<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| Reconstitution              | Please refer to the printed manual for detailed information.   |
| Data                        |  |



> 95 % as determined by reducing SDS-PAGE.

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### Background

Exostosin-like 2 (EXTL2) is a member of the exostosin (EXT)-related family which contains five members: EXT1, EXT2, EXTL1, EXTL2, and EXTL3. Studies have shown that EXT gene family members have the activities of heparan sulfate-synthesizing glycosyltransferases. EXT1 and EXT2, which have been identified as causal genes for hereditary multiple exostoses, have HS-GlcAT-II and GlcNAcT-II activities. EXTL1 has GlcNAcT-II activity and EXTL3 has GlcNAcT-I and -II activities. EXTL2 has GlcNAcT-I and N-acetylgalactosaminyltransferase activities, and transfers a GlcNAc residue to the tetrasaccharide linkage region when this region is phosphorylated by a xylose kinase 1 (FAM20B) and thereby terminate chain elongation. In mice, lack of EXTL2 causes glycosaminoglycan (GAG) overproduction and structural changes of GAGs associated with pathological processes.