

Immunization Grade Human Placenta Type V Collagen, Lyophilized

Catalog # 10951

For Research Use Only - Not Human or Therapeutic Use

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| DESCRIPTION: | Human type V collagen purified from pepsin-solubilized placenta by repeat salt precipitation. Placenta type V collagen consists of two subtypes of Type V collagen: $[\alpha 1(V)]_2\alpha 2(V)$ and $\alpha 1(V)\alpha 2(V)\alpha 3(V)$. |
| APPLICATION: | Use as an immunizing antigen to generate antibodies, an antigen to detect anti-type V collagen antibodies in ELISA, or as a standard for gel analysis. |
| QUANTITY: | 1 mg |
| FORM: | Lyophilized powder |
| SOURCE: | Human |
| MOLECULAR WEIGHT: | Intact placenta type V collagen: approximately 480 kDa. By 6% gel analysis, placenta type V collagen separates into three chains: $\alpha 1(V)$, $\alpha 3(V)$, and $\alpha 2(V)$ (1840, 1737, and 1258 amino acid residues) from the top of the gel. |
| PURITY: | >90% by SDS-PAGE gel analysis |
| STORAGE: | 4°C in the dark for lyophilized form and -20°C for solution form. Collagen may gradually degrade under neutral conditions |
| STABILITY: | 2 years for lyophilized form |
| NOTES: | Type V collagen can be dissolved at 4 mg/ml in acidic solutions such as 0.01-0.05M acetic acid, pH 3.0-3.3 or 0.15M citrate buffer, pH 3.6 by stirring at 4°C overnight. To neutralize the solution, add 10x neutral buffer containing 1.5M NaCl or dialyze the solution against a neutral buffer. |
| REFERENCES: | <p>C. Niyibizi, P. Fietzek, M. van der Rest, Human placenta type V collagens. Evidence for the existence of an alpha 1(V) alpha 2(V) alpha 3(V) collagen molecule. <i>J Biol Chem</i> 259, 14170-4 (1984).</p> <p>M. Abedin, S. Ayad, J. Weiss, Type V collagen: the presence of appreciable amounts of alpha 3(V) chain in uterus. <i>Biochem Biophys Res Commun</i> 102, 1237-45 (1981).</p> <p>Sato, K <i>et al.</i> Simple and Rapid Chromatographic Purification of Type V Collagen from a Pepsin Digest of Porcine Intestinal Connective Tissue, an Unmanageable Starting Material for Conventional Column Chromatography. <i>Journal of Chromatography</i> 790:277-283 (2003).</p> |