



# Recombinant Rat Collagen alpha-1 (IX) chain (Col9a1)

<b>Product Code</b>	CSB-EP005757RA
<b>Storage</b>	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
<b>Uniprot No.</b>	P20850
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Rattus norvegicus (Rat)
<b>Purity</b>	>85% (SDS-PAGE)
<b>Sequence</b>	PGQLGNSGKP GQQGPPGEVG PRGPRGLPGS RGPVGPEGSP GIPGKLGPLG SPGLPGLPGP PGLPGMKGDR GVFGEPPGPKG EQGASGEEGE AGVRGDLGDM GQPGPKGSVG NPGEPLRGP EGIRGLPGVE GPRGPPGPRG VQGEQGATGL PGIQGGPPGRA PTDQHIKQVC MRVVQEHFAE MAASLKRPTD GASGLPGRPG PPGPPGPPGE NGFPGQMGIR GLPGIKGPPG ALGLRGPKGD LGEKGERGPP GRGPKGLPGA IGLPGDGPFA SYGKNGRDGE QGPPGVAGIP GVPGPPGPPG PPGFCEPASC TLQAGQRAFS KGPKD
<b>Source</b>	E.coli
<b>Target Names</b>	Col9a1
<b>Protein Names</b>	Recommended name: Collagen alpha-1(IX) chain
<b>Expression Region</b>	1-325
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	Tag type will be determined during the manufacturing process.
<b>Protein Length</b>	Full length protein
<b>Target Details</b>	This gene encodes one of the three alpha chains of type IX collagen, which is a minor (5-20%) collagen component of hyaline cartilage. Type IX collagen is usually found in tissues containing type II collagen, a fibrillar collagen. Studies in knockout mice have shown that synthesis of the alpha 1 chain is essential for assembly of type IX collagen molecules, a heterotrimeric molecule, and that lack of type IX collagen is associated with early onset osteoarthritis. Mutations in this gene are associated with osteoarthritis in humans, with multiple epiphyseal dysplasia, 6, a form of chondrodysplasia, and with Stickler syndrome, a disease characterized by ophthalmic, orofacial, articular, and auditory defects. Two transcript variants that encode different isoforms have been identified for this gene.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final



concentration of glycerol is 50%. Customers could use it as reference.

### Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.