

## 32-3656: Dog CASQ2 Native Protein

**Alternative Name :** Calsequestrin-2,Calsequestrin cardiac muscle isoform,CASQ2,CSQ.

### Description

Source : Dog Heart. Calsequestrin is the major calcium storage protein of the sarcoplasmic reticulum. Intraluminal  $\text{Ca}^{2+}$  binds to calsequestrin during diastole to prevent  $\text{Ca}^{2+}$  precipitation and to lower its free ionic concentration to facilitate efficient storage. During systole, Calsequestrin coordinately releases  $\sim 40\text{-}50$   $\text{Ca}^{2+}$  ions per molecule for each contraction-relaxation cycle by an uncertain mechanism. Calsequestrin has been shown to be of major importance in the regulation of cardiac excitation-contraction coupling.

### Product Info

<b>Amount :</b>	5 $\mu\text{g}$
<b>Purification :</b>	Greater than 90% as determined by SDS-PAGE.
<b>Content :</b>	The protein was lyophilized from a concentrated solution (1mg/ml) containing 10mM Tris-HCl and 1mM EGTA.
<b>Storage condition :</b>	Lyophilized CASQ2 although stable at room temperature for 3 weeks, should be stored desiccated below $-18^{\circ}\text{C}$ . Upon reconstitution CASQ2 should be stored at $4^{\circ}\text{C}$ between 2-7 days and for future use below $-18^{\circ}\text{C}$ . For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Application Note

It is recommended to reconstitute the lyophilized CASQ2 in sterile  $18\text{M-}\Omega$   $\text{H}_2\text{O}$  not less than  $100\text{ }\mu\text{g/ml}$ , which can then be further diluted to other aqueous solutions.

