Actin from rabbit muscle

Product Number  A 2522
Storage Temperature   2-8 °C

Product Description
CAS Number: 51005-14-2
Extinction coefficient: $E_{1%}^{1\text{cm}} = 1.11$ (G-actin), $1.17$ (F-actin)
$\mathrm{pI}: 5.47$ ($\alpha$), $5.53$ ($\beta$), $5.50$ ($\gamma$)

This material is prepared from skeletal muscle by using a modification of a reported method. The molecular weight of the polypeptide by sequence analysis is 41.785 kDa and when calcium and ATP are included, the total is 42.3 kDa. Methods have been reported for converting this product to the F-actin form.

Monomeric rabbit actin has been used to inhibit DNase I, with a binding constant $= 5 \times 10^8 \text{M}^{-1}$. The atomic structure of the actin:DNase I complex along with the amino acid sequence has been reported. It is noted that the ability of actin to polymerize is lost after forming a 1:1 complex with DNase I.

Precautions and Disclaimer
For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions
This material is soluble in water (1 mg/ml), yielding a hazy solution.

References