

Certificate of Analysis

Proteasome 20S (Untagged, Human)

For research use only

Product Details

Scientific Background

The 20S proteasome is the catalytic core of the 26S proteasome, the central protease of the ubiquitin pathway of protein degradation. Unlike the 26S proteasome, which degrades proteins in an ATP-dependent manner, the 20S proteasome is ATP-independent and only degrades entirely unfolded polypeptides. Inhibition of 20S Proteasome proteolytic core activity using small molecule inhibitors is a valuable tool for the functional study of a variety of proteins and for therapeutic intervention. The 20S Proteasome can be activated chemically by the addition of detergent or by the proteinaceous activator PA28 Activator alpha.

Source: Purified from human red blood cells by fractionation. Untagged. Soluble and homogenous. The human 20S Proteasome protein has been purified from human erythrocytes, which have been screened and are negative for hepatitis B surface antigen, antibodies to hepatitis C virus, HIV type 1 antigens, and antibodies to HIV type 1 and 2.

Formulation: Liquid. In 20mM TRIS-HCl, pH 7.2, containing 1mM EDTA, 1mM DTT, 1mM sodium azide, and 50% glycerol.

Purity: >95%, by SDS-PAGE.

Shipping: Shipped on Dry Ice.

Long Term Storage: -80°C.

Use/Stability: 20S Proteasome remains relatively stable and active so long as repetitive freeze-thaw cycles are avoided. It has been demonstrated that 20S proteasome undergoes only slow loss of activity when stored at 4°C for up to six months. If it is to be used on a regular basis, it is recommended that the material should be stored between 0°C-4°C during the duration of use. For longer-term storage, the material may be dispensed as single-use aliquots and stored at -80°C.

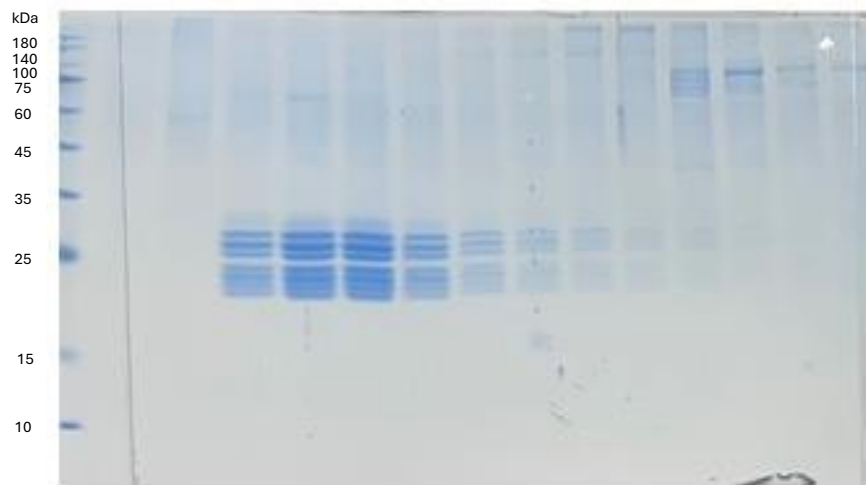


Figure 1. Coomassie stained 12% SDS-PAGE following a final polishing step depicting untagged human standard 20S proteasome isolated by fractionation from human red blood cells.