xpression Technologies Inc.

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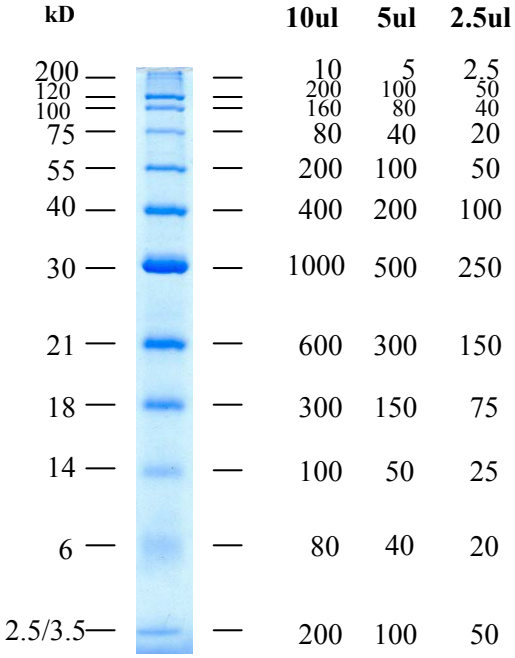
QuantPro™3-200

Cat #: 30011, 30012

Kilo Daltons Nanograms in loading (ul)



Number of bands: There are13 protein bands totally. Under some electrophoretic conditions, the two insulin polypeptide bands runs together at about 3 kD. Only 12 protein bands will be shown on gel.

Range of molecular weight: 3 kD to 200 kD

Storage conditions: 4 ^{0}C for 6 month or room temperature for 6 weeks.

Recommended Loading: 5ul/lane

Loading: It is supplied in ready-to-load buffer containing SDS and reducing agents. No further mixing, heating, or reducing is required. It is stored at liquid condition. No thawing and refreezing are needed.

Staining: The gel is stained by ProBlue™ (Cat. #30101). Similar results can be obtained from regular brilliant blue staining procedures. **The gel cannot be over de-stained**. This standard on a over de-stained gel can only serve as a size marker. However proper staining and de-staining, over staining, or under de-staining will not affect size and quantity. ProBlue™ eliminate de-stain procedure and cannot over de-stain the gel.

FAQs about QuantPro™3-200

How much should it be loaded?
Recommended loading for this standard is 5 ul. However other volumes may be loaded depending on gel and loading well sizes. For large gel with big loading wells, 10 to 20 ul may be loaded. For mini gel with small wells, 2 to 2.5 ul may be loaded.

How accurate is the quantity determination?
The quantity of each protein band is extensively calibrated by using different amount of BSA as standards. The mechanism of quantification is same as that of Bradford Assay. However, unlike Bradford Assay or other protein assays, chemicals including detergents, lipids, buffers, salts, and reducing agents in a protein sample will not affect the quantity estimations. These impurities will be separated and washed out during electrophoresis, washing, staining and destaining procedures. In addition, multiple proteins in a protein sample can be independently quantified. If a UV reading gives different quantity than it is determined by our standards, our quantification is more accurate. This is simply because of contamination of protein sample with impurities include but not limited to DNA, RNA, contaminant proteins and other chemicals. These impurities will not affect quantification when using our standards.

Can we use a density scanner to determine quantity with this standard?
Of course. Make sure the gel is evenly stained and destained when you compare different protein bands on the gel. If the gel is not evenly stained and destained, the quantity will not be accurate.

Why are low or high molecular weight (MW) protein bands sometimes not resolved or detectable?
The figures of these standards are prepared from a 15% Tris-glycine SDS gel. The 6 kD band is broad because of SDS interference. The 200 kD band is not resolved and detected well. Only a low percentage gel ($\leq$10%) will separate and detect high MW bands and only a high percentage gel ($\geq$15%) will separate and detect low MW bands. A gradient gel will often separate them well.