## biotechne

# New Processing Same Protein

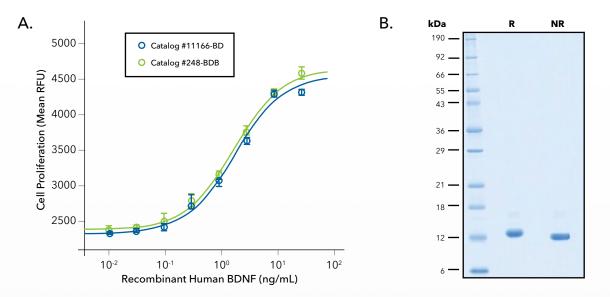
### Try the New Version of Recombinant Human BDNF Protein for Your Research Needs

For over 20 years, R&D Systems<sup>™</sup> has endeavored to offer highly bioactive and reliable BDNF protein to enable your scientific discoveries. As our company has grown, so has our customers' needs. With the advancement of protein purification and cell culture techniques, we have the opportunity to improve our products for better protein yield per batch. Our new version of R&D Systems<sup>™</sup> Recombinant Human BDNF (Catalog # 11166-BD) helps us ensure supply chain continuity well into the future without sacrificing quality. Consider the key benefits below and make the switch from our Original to New BDNF.

#### Key Benefits That Our New BDNF Protein Offers to Customers

- **Scalable.** Our updated manufacturing process and increased yields per batch provide a solid supply chain.
- Economical. Improved manufacturing allows us to transfer savings directly back to our customers.
- **Same Bioactivity.** The new BDNF protein displays the same activity as our original BDNF product.
- High Lot-to-Lot Consistency. As with all R&D Systems proteins, we have full control of development, manufacturing and QC processing from the start. Each new lot is tested side-by-side with previous lots and a control lot to guarantee highest lot-to-lot consistency for specifications you can trust.





**New Human Recombinant Human BDNF Displays Similar Bioactivity to the Original Recombinant Human BDNF Protein and High Purity. (A)** The bioactivity of the new Recombinant Human CHO-derived BDNF (R&D Systems, Catalog # 11166-B) was compared to the bioactivity of the original Recombinant Human *Sf*21 (baculovirus)-derived BDNF (R&D Systems, Catalog # 248-BDB) by testing the ability of the proteins to stimulate proliferation of the BaF mouse pro-B cells transfected with TrkB. **(B)** SDS-PAGE analysis was performed on 2 µg/lane Recombinant Human BDNF (R&D Systems, Catalog # 11166-BD) under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie\* Blue staining showing bands at 11-15 kDa.

### Comparison of Product Specifications for Original (248-BDB) and New (11166-BD) BDNF Protein

SPECIFICATIONS	248-BDB (Original)	11166-BD (New Version)
Activity	Measured in a cell proliferation assay using BaF mouse pro-B cells transfected with TrkB. The ED <sub>50</sub> for this effect is 0.2-2 ng/mL.	Measured in a cell proliferation assay using BaF mouse pro-B cells transfected with TrkB. The $ED_{50}$ for this effect is 0.2-2 ng/mL.
Source	Spodoptera frugiperda, Sf 21 (baculovirus)-derived BDNF protein. His129-Arg247.	Chinese Hamster Ovary cell line, CHO-derived human BDNF protein. His129-Arg247.
Purity	>97%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
N-terminal Sequence	His129	His129
Predicted Molecular Mass	13.5kDa	13.5kDa
Pack Sizes	10, 50, 250 µg	10, 50, 250 μg, 1 mg
Formulation	Lyophilized from a 0.2 µm filtered solution in Sodium Citrate and NaCl.	Lyophilized from a 0.2 $\mu m$ filtered solution in PBS with Trehalose.
Endotoxin	<0.10 EU per 1 $\mu g$ of the protein by the LAL method.	<0.10 EU per 1 $\mu g$ of the protein by the LAL method.



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