PRODUCT INFORMATION

Citrullinated BSA

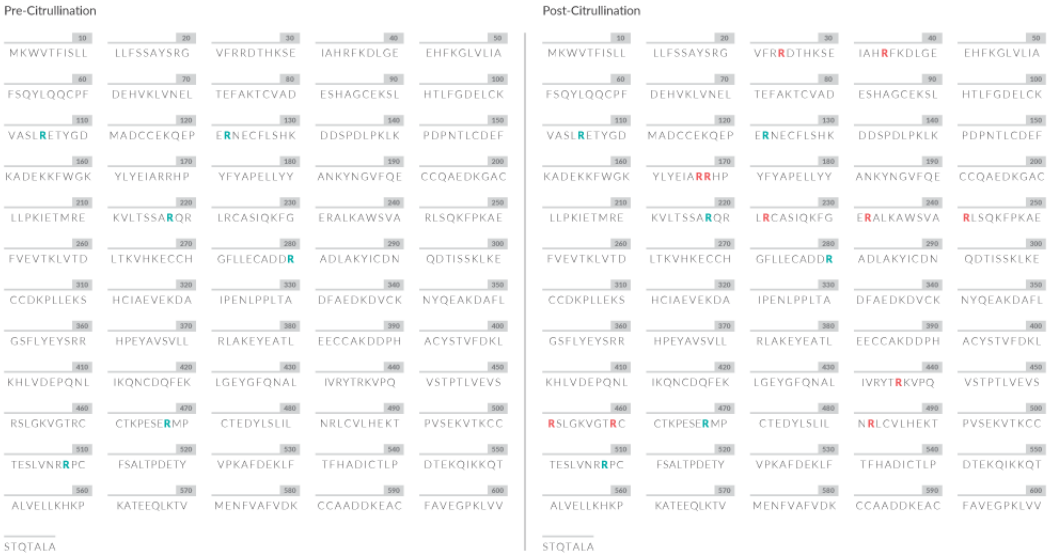
Item No. 43743

Overview and Properties

Synonyms: Citrulline Bovine Serum Albumin, Citrulline-modified Bovine Serum Albumin
Source: Albumin isolated from bovine plasma and modified with citrulline
Uniprot No.: P02769
Molecular Weight: ~66.43 kDa
Storage: -80°C (as supplied)
Stability: ≥1 year
Purity: ≥80% (estimated by SDS-PAGE)
Supplied in: PBS, pH 7.4
Concentration: ***batch specific*** mg/ml

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Identification of modified sites in Citrullinated BSA (Item No. 43473). Citrullinated BSA was detected by LC-MS/MS and analyzed using Mascot and Scaffold PTM software. Naturally deiminated arginines are indicated in teal. Additional deiminated arginines are shown in red.

Citrullination sites shown are representative of typical results. Batch-to-batch variations may occur.

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Description

Citrulline is a non-proteinogenic amino acid that is produced by deimination of arginine through the post-translational modification citrullination.[1] Citrullination is catalyzed by protein arginine deiminases (PADs) that convert positively charged arginine to electrically neutral citrulline, decreasing the isoelectric point of the protein, altering the native protein structure, and influencing protein ionic interactions.[2] Protein citrullination has roles in many physiological and pathological processes, including autoimmunity, cancer, and neurodegenerative disorders.[3] This product contains PAD4-citrullinated bovine serum albumin (BSA), which contains a higher ratio of citrullination than native BSA.

References

1. Yuzhalin, A.E. Citrullination in cancer. *Cancer Res.* **79(7)**, 1274-1284 (2019).
2. György, B., Tóth, E., Falus, A., *et al*. Citrullination: A posttranslational modification in health and disease. *Int. J. Biochem. Cell Biol.* **38(10)**, 1662-1677 (2006).
3. Lee, C.-Y., Wang, D., Wilhelm, M., *et al*. Mining the human tissue proteome for protein citrullination. *Mol. Cell Proteomics* **17(7)**, 1378-1391 (2018).

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