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# Highly Purified Staphylococcal Protein A PRTX-100

National Cancer Institute

## Source

National Cancer Institute. *Highly Purified Staphylococcal Protein A PRTX-100*. NCI Thesaurus. Code C127839.

A proprietary formulation containing a highly purified form of Staphylococcal protein A (SpA; protein A), with potential immunomodulating activity. Upon administration of PRTX-100, this protein is able to specifically bind to both the subset of B-lymphocytes that express the heavy chain variable region 3 (VH3)-encoded immunoglobulin (Ig) (VH3-B-cells) and macrophages. This prevents B-cell activation, induces apoptosis, prevents VH3-derived antibody formation, antibody-mediated immune responses, and destruction by macrophages. This may modulate specific immune signaling pathways and restore normal immune system functions caused by certain immune-mediated inflammatory diseases. In patients with the autoimmune-mediated disease immune thrombocytopenia (ITP), PRTX-100 prevents destruction of platelets, increases platelet production and platelet blood levels, and decreases the risk of bleeding. SpA, a 42 kDa bacterial membrane protein produced by *Staphylococcus aureus* bacteria, consists of five nearly identical Ig binding domains; each SpA domain binds with high affinity to the Igs containing regions encoded by the VH3 gene family. B-lymphocytes that express VH3-encoded Igs are specifically involved in various auto-immune diseases.