

[Open Peer Review on Qeios](#)

Staphylococcal Enterotoxin A

National Cancer Institute

Source

National Cancer Institute. *Staphylococcal Enterotoxin A*. NCI Thesaurus. Code C1083.

A bacterial enterotoxin with potential immunostimulatory activity. Staphylococcal enterotoxin A (SEA), a gram positive bacterial superantigen (SAg), is a potent stimulator of T-cell activation. SEA superantigen binds directly to class II major histocompatibility complex (MHC) molecules and to the V beta region of the T-cell receptor (TCR), leading to an amplified T-cell response. In response to SEA, both CD4+ and CD8+ cells proliferate, secrete cytokines, and demonstrate enhanced cytotoxic activity against a broad range of antigens. Vaccination with the SEA protein, administered by direct transfection into tumor cells, may elicit a non-specific cytotoxic T-cell (CTL) response and result in decreased tumor cell growth.