

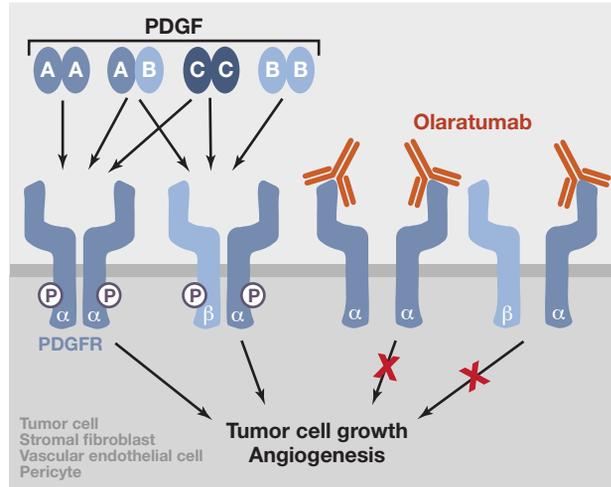
# PDGFRA Antibody for Soft Tissue Sarcoma

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**NAME**

Olaratumab (Lartruvo), originally IMC-3G3

**APPROVED FOR**

Soft tissue sarcoma (for which doxorubicin is appropriate)

**TYPE**

Fully humanized monoclonal antibody (IgG1)

**MOLECULAR TARGETS**

PDGFRA, extracellular domains

**CELLULAR TARGETS**

Tumor cells, tumor-associated fibroblasts/stromal cells, endothelial cells, and pericytes

**EFFECTS ON TARGETS**

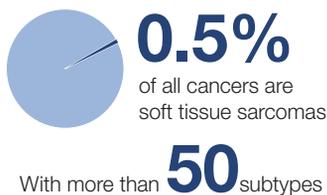
Inhibits ligand binding and resultant kinase activation

**DEVELOPED BY**

Eli Lilly

**Lartruvo (olaratumab) is a monoclonal antibody against the extracellular domain of PDGFRA. Olaratumab blocks ligand binding and thereby inhibits activation of PDGFRA kinase activity. Pre-clinically, this antibody inhibited PDGFRA-dependent tumor growth. In a randomized Phase II study, adding olaratumab to doxorubicin chemotherapy significantly improved overall survival, leading to FDA approval.**

## Incidence of Soft Tissue Sarcoma



Most common forms include:  
Undifferentiated pleomorphic sarcoma  
Liposarcoma  
Leiomyosarcoma

12,390 new cases diagnosed in 2016



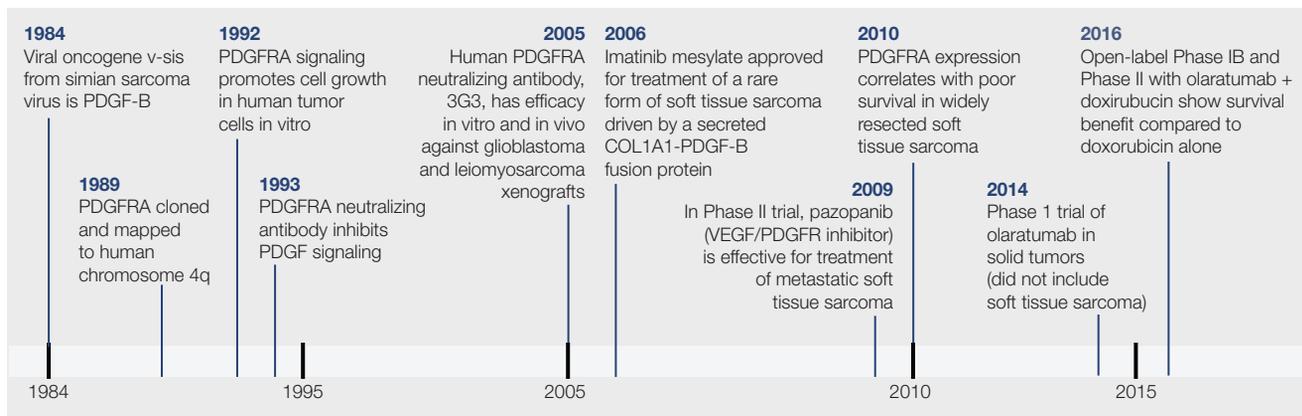
## Benefit in median overall survival

Doxorubicin chemotherapy

14.7 months

Adding olaratumab

Extended by 11.8 months



References for further reading are available with this article online: [www.cell.com/cell/fulltext/S0092-8674\(17\)30113-7](http://www.cell.com/cell/fulltext/S0092-8674(17)30113-7)

