Contribution to SBGN contest: best SBGN map - breadth, accuracy, aesthetics

SBGN-PD map of the main parts of the TGF β signalling pathway

Katja Wegner

Cooperative State University Baden-Wuerttemberg
Erzbergerstraße 121
D-76133 Karlsruhe, Germany

The signaling starts after binding of the ligand to the receptors at the membrane. The active receptor complex is able to phosphorylate the receptor-activated Smads. The phosphorylated Smads build a complex with the common Smad4. The complexes translocate to the nucleus to activate or repress genes. The map shows the enhancing of the production of the inhibitory Smad7. Smad7 binds to the active receptor on the same binding side as the receptor-activated Smads to inhibit their phosphorylation.

Acknowledgment:

I would like to thank Nicolas Le Novère for hints to include all aspects of SBGN.