

# Download Function Of Erythropoietin In Erythroogenesis

Erythroogenesis, the creation of erythrocytes (better known as red blood cells) requires iron because iron is a necessary constituent of the chemical hemoglobin, which is used to transport oxygen. It appears that this links erythropoietin-driven erythropoiesis with the iron mobilization needed for hemoglobin synthesis. Loss of function of the erythropoietin receptor or JAK2 in mice cells causes failure in erythropoiesis, so production of red blood cells in embryos and growth is disrupted. Erythropoietin has been shown to exert its effects by binding to the erythropoietin receptor (EpoR). EPO binds to the erythropoietin receptor on the red cell progenitor surface and activates a JAK2 signalling cascade. This initiates the STAT5, PIK3 and Ras MAPK pathways. oxygen, erythropoietin begins to be formed within minutes to hours, and it reaches maximum production within 24 hours. Yet almost no new red blood cells appear in the circulating blood until about 5 days later. From this fact, as well as other studies, it has been determined that the important effect of erythropoietin