BIL:ALB scavenges O2.-

Somers, J., Stephan, R.
Introduction

Reactome is open-source, open access, manually curated and peer-reviewed pathway database. Pathway annotations are authored by expert biologists, in collaboration with Reactome editorial staff and cross-referenced to many bioinformatics databases. A system of evidence tracking ensures that all assertions are backed up by the primary literature. Reactome is used by clinicians, geneticists, genomics researchers, and molecular biologists to interpret the results of high-throughput experimental studies, by bioinformaticians seeking to develop novel algorithms for mining knowledge from genomic studies, and by systems biologists building predictive models of normal and disease variant pathways.

The development of Reactome is supported by grants from the US National Institutes of Health (P41 HG003751), University of Toronto (CFREF Medicine by Design), European Union (EU STRP, EMI-CD), and the European Molecular Biology Laboratory (EBI Industry program).

Literature references


Reactome database release: 78

This document contains 1 reaction (see Table of Contents)

https://reactome.org
**BIL:ALB scavenges O2.-**

**Stable identifier:** R-HSA-9709883

**Type:** uncertain

**Compartments:** extracellular region

Like unbound bilirubin (BIL) the bilirubin-albumin complex (BIL:ALB) scavenges superoxide. Small amounts of plasma bilirubin are sufficient to prevent oxidation of albumin-bound fatty acids as well as of the protein itself. This indicates a role for BIL:ALB as a physiological antioxidant in plasma and the extravascular space. There is however no evidence for a fully circular mechanism where all bilirubin is oxidized back to biliverdin to be available again as antioxidant (Stocker et al, 1987; Maghzal et al, 2009).

**Literature references**


**Editions**

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020-12-14</td>
<td>Authored, Edited</td>
<td>Stephan, R.</td>
</tr>
<tr>
<td>2021-01-23</td>
<td>Reviewed</td>
<td>Somers, J.</td>
</tr>
</tbody>
</table>