

# Changes in Rab3D expression and distribution in the acini of Sjögren's syndrome patients are associated with loss of cell polarity and secretory dysfunction

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Objective Oral and ocular dryness are frequent and serious symptoms of Sjögren's syndrome (SS) that reflect problems in secretion due to glandular dysfunction. Exocytosis, an important process in the secretory pathway, requires the participation of Rab family GTPases. This study was undertaken to analyze the expression and localization of Rab3D and Rab8A and to examine their correlation with acinar cell polarity and glandular secretory function. Methods Nineteen patients with SS and 17 controls were evaluated. Levels of Rab3D and Rab8A messenger RNA (mRNA) and protein were determined by real-time polymerase chain reaction and Western blotting. Subcellular localization of proteins was determined by indirect immunofluorescence analysis. Results In patients with SS, total

Rab3D protein levels decreased significantly, while mRNA levels remained unchanged. For Rab8A, no changes in either mRNA or protein levels were detected. In serous acini of labial salivary glands from patients with SS, t