The 2-Oxoglutarate-Dependent Oxygenase JMJD6 Catalyses Oxidation of Lysine Residues to give 5S-Hydroxylysine Residues

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Abstract:

Amino acid analyses reveal that JMJD6-catalysed hydroxylation of RNA-splicing regulatory protein fragments occurs to give hydroxylysine products with 5S stereochemistry. This contrasts with collagen lysyl hydroxylases, which give 5R-hydroxylated products. The work suggests that more than one subfamily of lysyl hydroxylases has evolved and illustrates the importance of stereochemical assignments in proteomic analyses.

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