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Title:	Profiling DUB activity against Sde2
Authors:	Navya.
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Abstract:	<p>Deubiquitinating enzymes(DUBs) are the class of proteases that process ubiquitin at the di-glycine motif; DUBs also process ubiquitin-like proteins(UBLs). Sde2 is a ubiquitin-like protein having the conserved di-glycine motif. There is significant evidence in the literature that shows that an unknown DUB processes human Sde2. The study aimed to find out the DUB, which can process human SDE2-UBL, around 102 DUBs are known to be present in humans. Out of these DUBs, we chose some for study we chose DUBs having mild deubiquitinase activity or no deubiquitinase activity. The rationale behind selecting such DUBs for the study was based on the hypothesis that DUBs with mild deubiquitinase activity or no deubiquitinase activity. But, those containing the catalytic triad must have evolved to perform some other cellular function, i.e., initially, all DUBs processed ubiquitin and human SDE2-UBL as both were very similar. But later, the SDE2-UBL diverged from ubiquitin, and hence the DUBs which could process ubiquitin were not successful in processing SDE2-UBL. DUBs that lost their deubiquitinase activity against ubiquitin or have mild activity must have evolved to process ubiquitin-like protein SDE2. Our study suggests that some of the DUBs known not to process ubiquitin show some processivity towards ubiquitin but do not process human SDE2.</p>
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