



enzymes that contain a Cys-cisSer-Lys, Ser-cisAla-Lys  
 l or a substitution of Gly130 with alanine. Cysteine can  
 to a hyper-reactivity of the residue, which results in the  
 cysteinyl sulfenic acid, most likely inside the expression h

| Substitution |                              |
|--------------|------------------------------|
| Seq Position | Biological Sequence Position |
| Wt Residue   | Biological Sequence Element  |
| Mt Residue   | Biological Sequence Element  |

| Deletion        |                              |
|-----------------|------------------------------|
| Start Position  | Biological Sequence Position |
| End Position    | Biological Sequence Position |
| Deleted Element | Biological Subsequence       |

| Insertion         |                              |
|-------------------|------------------------------|
| Inserted Position | Biological Sequence Position |
| Inserted Element  | Biological Sequence Position |

**Supplementary Figure 1:** A schematic representation of the mutation ontology developed for the mutation annotation project. All annotation was performed using the Knowtator package (<http://bionlp.sourceforge.net/Knowtator/>).