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(54) Title: PROTEIN LABELLING WITH O6-ALKYLGUANINE-DNA ALKYLTRANSFERASE

(57) Abstract: The present invention relates to methods of transferring a label from suitable substrates to O6-alkylguanine-DNA alkyltransferase (AGT) fusion proteins, to suitable fusion proteins, to suitable variants of AGT, and to novel labelled fusion proteins obtained. A protein of interest is incorporated into an AGT fusion protein, the AGT fusion protein is contacted with an AGT substrate carrying a label, and the AGT fusion protein is detected and/or manipulated using the label in a system designed for recognising and/or handling the label.

WO 2004/031404 A1