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Author: Anastasiya A. Kosova Svetlana N. Khodyreva Olga I. Lavrik



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Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) interacts with apurinic/apyrimidinic sites in DNA

Anastasiya A. Kosova^{a,1}, Svetlana N. Khodyreva^{a,b1}, Olga I. Lavrik^{ab*} lavrik@niboch.nsc.ru

^aInstitute of Chemical Biology and Fundamental Medicine, Siberian Branch of the Russian Academy of Sciences, Novosibirsk, Russia

^bNovosibirsk State University, Novosibirsk, Russia

¹These authors contributed equally to this work.

*Corresponding author at: 8 Lavrentiev Avenue, Novosibirsk, Russia 630090. Fax: +7-383-363 51-53

Graphical abstract

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Highlights

- When searching for proteins that react with AP sites in DNA GAPDH was identified.
- GAPDH forms both borohydride-dependent and independent adducts with AP DNA.
- GAPDH does not display the AP lyase and uracil-DNA glycosylase activities.
- GAPDH crosslinks preferentially to AP DNA cleaved via the β -elimination mechanism.
- The level of GAPDH–AP DNA crosslinking depends on oxidation of GAPDH SH-groups.

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