## **Descriptions of Additional Supplementary Files**

File Name: Supplementary Movie 1 Description: H2A-HaloTag in wild-type mES cells during 30-ms exposure time.

File Name: Supplementary Movie 2 Description: HaloTag-NLS in wild-type mES cells during 30-ms exposure time.

File Name: Supplementary Movie 3 Description: HaloTag-Cbx7 in wild-type mES cells during 30-ms exposure time.

File Name: Supplementary Movie 4 Description: HaloTag-Ezh2 in wild-type mES cells during 30-ms exposure time.

File Name: Supplementary Movie 5 Description: HaloTag-Eed in wild-type mES cells during 30-ms exposure time.