Comments on the deposited data files for the figures presented in the manuscript.

Main Figures:

Figure 1	A	No relevant raw data
	B	Left: https://www.rcsb.org/structure/8C05 Right: AF2 model of MsLadC – pdb
Figure 2	A - D	Images were acquired using the rear camera of an iPhone 12 Pro (Apple Inc.) Automatic exposure and white balance were enabled. Post-acquisition processing consisted of cropping and a uniform global contrast increase of 30%. Full image available as Supporting Information Figure S2
	E	No relevant raw data
Figure 3	A	The axis title, units, sample name are provided in the file header; the column separator is a comma ",". Raw data can be found in the file: **Figure3A_Absorption_spectra_dark_light_MsLadC_MsIs_AoMs.csv**
	B	The axis title, units, and sample names are provided in the file; the column separator is a comma ",". File name: **Figure3B_DGC_activities_200uM_GTP_HPLC.csv**
	C	The axis title, units, sample name are provided in the file header; the column separator is a comma ",". Raw data is provided in the file: **Figure3C_SEC_narrow_dark_light.csv**
Figure 4	A	Yaml files from Hexicon 2 analysis of HDX data. The files can be opened using HXViewer, freely available from https://hx2.mr.mpg.de/ File names: **MsIs_dark_filtered.yaml**; **MsIs_light_unfiltered.yaml**
	B	ChimeraX session file of various exchange timepoints colored onto MsIs structure. Requires ChimeraX with Atomic bundle version 1.49.1 or higher. File name: **MsIsAF2relaxed-HDX.cxs**
	D-I	Individual peptides can be visualized using HXViewer (see panel A) and the yaml files provided there.
Figure 5		No relevant raw data

Supporting data

Figure S1		No relevant raw data
Figure S2		Cropped, full images of Figure 2. File names: **Figure2A-D_DGCscreen-day04-dark-3207-cropped.png**, **Figure2A-D_DGCscreen-day04-light-3197-cropped.png**
Figure S3		ChimeraX visualizations of pdb 8c05; no file provided
Figure S4	A-C	Raw data of all shown absorption spectra can be found in file: **FigureS4A-C_absorption_spectra_AoMs_AoMsEN_AoMsNK_dark_illuminated.csv**. The axis title, units, sample name are provided in the file header; the column separator is a comma ",".
	D-H	The axis title, units, sample name are provided in the file header; the column separator is a comma ",". The measured absorbance over the time and the fitted curves using a single exponential function for each sample is summarized in file: **FigureS4D-H_recovery_kinetics_AoMs_AoMsEN_AoMsNK_MsLadC_MsIs.csv**
Figure S5		The axis title, units, sample name are provided in the file; the column separator is a comma ",". File name: **FigureS5_GTPconversion_MsIs.csv**
Figure S6		The axis title, units, sample name are provided in the file; the column separator is a comma ",". File name: **FigureS6_SEC_chromatograms_MsLadC_MsIs_AoMs.csv**