

Guidelines for annotating molecular adaptor activity

A molecular adaptor activity is the binding activity of a molecule that brings together two or more molecules through a selective, non-covalent, often stoichiometric interaction, permitting those molecules to function in a coordinated way.

Pathway Editor

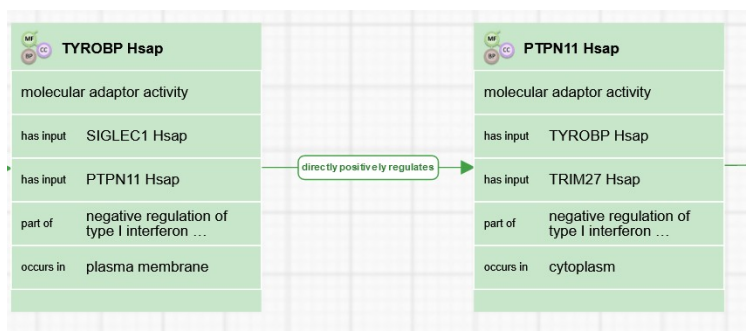
The molecular activity unit for a molecular adaptor is:

- **MF:** 'enables' molecular adaptor activity ([GO:0060090](#)) or a child
- **Context:**
 - The relation between the adaptor activity and the two (or more) molecules it brings together is 'has input'
 - **BP:** 'part of' the BP in which the adaptor participates
 - **CC:** 'occurs in' the cellular location where the activity takes place.

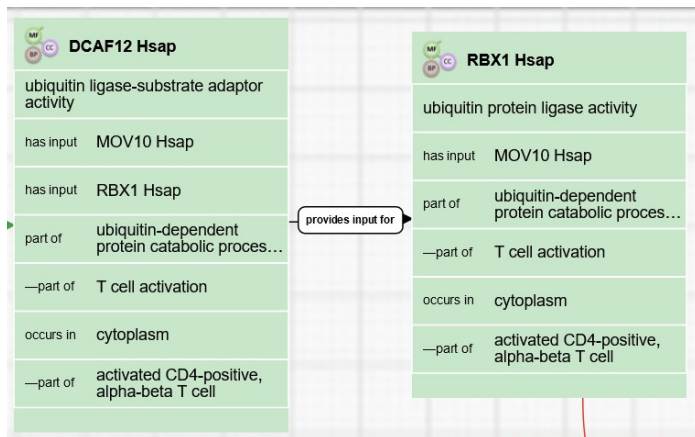
The relation between the adaptor and the proteins it adapts can be 'directly positively regulates' or 'provides input for', depending if the activity of the adaptor is regulatory.

Example 1: [TYROBP acts as an adaptor between a receptor and a downstream effector](#)

SIGLEC1 recognizes and endocytoses virions, which leads to activation of the TYROBP molecular adaptor, which recruits PTPN11. The scaffolding activity of PTPN11 is activated by TYROBP.



Example 2: [An adaptor that brings together an enzyme and its substrate](#)



In that case, the relation between the adaptor activity and the downstream activity is 'provides input for'.

Form Editor

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 - **BP:** 'part of' the BP in which the adaptor participates
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1.2	DCAF12 Hsap UniProtKB:Q...	Activity Unit	Jul 20, 2023	MF ubiquitin ligase-substrate adaptor acti...	BP ubiquitin-dependent protein catabolic ...
RELATIONSHIP	TERM	ASP	EXT	EVIDENCE	REFERENCE
	ubiquitin ligase-substrate adaptor activity GO:1990756	F			
	DCAF12 Hsap UniProtKB:Q5T6F0			direct assay evidence used in manual assertion ECO:0000314	PMID:29779948
				direct assay evidence used in manual assertion ECO:0000314	PMID:31267705
				direct assay evidence used in manual assertion ECO:0000314	PMID:34065512
has input	MOV10 Hsap UniProtKB:Q9HCE1		ext.	direct assay evidence used in manual assertion ECO:0000314	PMID:34065512
has input	RBX1 Hsap UniProtKB:P62877		ext.	direct assay evidence used in manual assertion ECO:0000314	PMID:34065512
	ubiquitin-dependent protein catabolic process via the C-end degron rule pathway GO:0140627	P		direct assay evidence used in manual assertion ECO:0000314	PMID:29779948

Differences between GO-CAM and standard annotation of a molecular adaptor activity

In standard annotation (captured with the Noctua Form or Protein2GO), relations between molecular functions are not captured.

Review information

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