

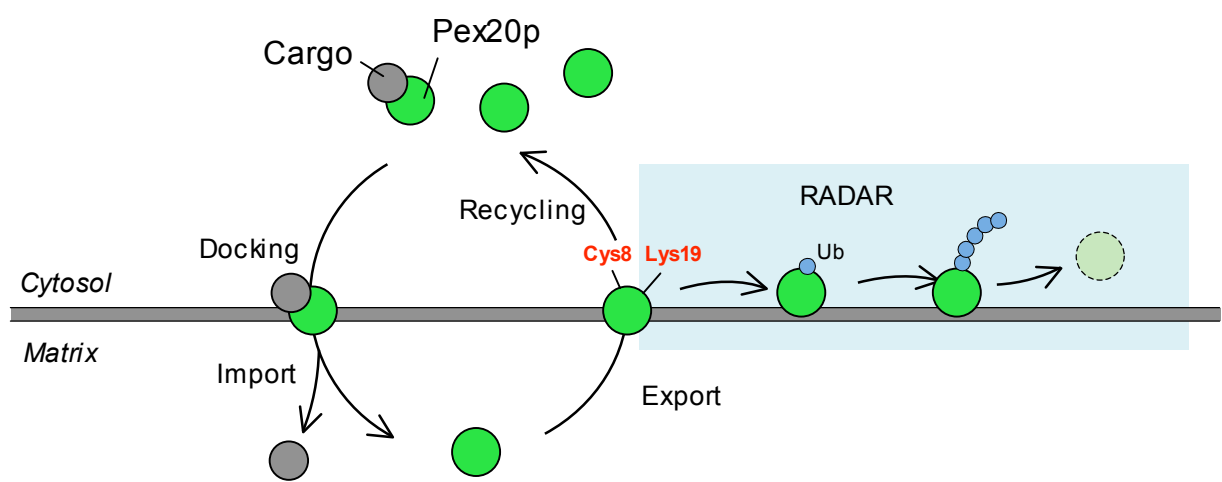
SUPPLEMENTARY MATERIAL LEGEND

Suppl. table 1- Oligonucleotides used in this study. pSEB48 (p*PEX20*:Pex20-GFP) and pSEB116 (p*PEX20*:Pex20[K19R]-GFP) (described in [6]) are used as templates for site-directed mutagenesis, to generate the indicated plasmids.

Suppl. fig. -1 Working model: recycling or degradation (RADAR) as two alternative and functional pathways for removal of cargo-free receptors from the peroxisomal membrane. This study indicates an essential role of the residue Cys8 of Pex20p in its recycling to the cytosol after a round of import. Upon mutation of this residue, the receptor accumulates at the peroxisomal membrane and Lys19 is used as a site of conjugation to ubiquitin, eventually leading to its proteasomal degradation by the RADAR pathway. This pathway allows for some import as demonstrated by growth on oleate of the strain carrying the Pex20p(C8S) mutant.

Name	Sequence (5' -> 3')	Template mutated	Construct generated
20(Δ 1-7).d	GTTTGAATGTGTGGGCCCCGCCACAGCGCTAGA	pSEB48, pSEB116	pSEB162 = pPEX20:Pex20(Δ 1-7)-GFP
20(Δ 1-7).r	TCTAGCGCTGTGGCGGGCCCCACACATTCAAAC		pSEB163 = pPEX20:Pex20(Δ 1-7, K19R)-GFP
20(Δ 1-10).d	TTAAGTGTTTGAATGGCCACCGCTCTAGATAATCTCA	pSEB48 pSEB116	pSEB164 = pPEX20:Pex20(Δ 1-10)-GFP
20(Δ 1-10).r	TGAGATTATCTAGAGCGGTGGCCATTCAAACACTTAA		pSEB165 = pPEX20:Pex20(Δ 1-10,K19R)-GFP
20(Δ 1-16).d	TTAAGTGTTTGAATGCTCAGCAAGAGAGTCGG	pSEB48	pSEB166 = pPEX20:Pex20(Δ 1-16)-GFP
20(Δ 1-16).r	CCGACTCTCTTGCTGAGCATTCAAACACTTAA		
20(Δ 1-16, K19R).d	TTAAGTGTTTGAATGCTCAGCAGGAGAGTCGGGCAGGA	pSEB48	pSEB167 = pPEX20:Pex20(Δ 1-16, K19R)-GFP
20(Δ 1-16, K19R).r	TCCTGCCCGACTCTCCTGCTGAGCATTCAAACACTTAA		
20(C8S).d	CTTCTAATGGCAGTAGTGGGCCCCGCCACAGCGCTAGA	pSEB48 pSEB116	pSEB168 = pPEX20:Pex20(C8S)-GFP
20(C8S).r	TCTAGCGCTGTGGCGGGCCCCACTACTGCCATTAGAAG		pSEB169 = pPEX20:Pex20(C8S,K19R)-GFP

Léon and Subramani – **Supplementary Table 1**



Léon and Subramani - Supplementary figure 1