

**Table S1.** List of microRNAs associated with the autophagy-related proteins.

| Protein | microRNA        |
|---------|-----------------|
| ATG12   | hsa-let-7a-5p   |
|         | hsa-miR-124-3p  |
|         | hsa-miR-1301-3p |
|         | hsa-miR-1304-5p |
|         | hsa-miR-1-3p    |
|         | hsa-miR-147a    |
|         | hsa-miR-16-2-3p |
|         | hsa-miR-17-3p   |
|         | hsa-miR-191-5p  |
|         | hsa-miR-200b-3p |
|         | hsa-miR-200c-3p |
|         | hsa-miR-203a-3p |
|         | hsa-miR-30a-5p  |
|         | hsa-miR-30b-5p  |
|         | hsa-miR-30c-5p  |
|         | hsa-miR-30d-5p  |
|         | hsa-miR-30e-5p  |
|         | hsa-miR-376a-5p |
|         | hsa-miR-424-5p  |
|         | hsa-miR-495-3p  |
|         | hsa-miR-522-5p  |
|         | hsa-miR-577     |
|         | hsa-miR-10b-5p  |
| ATG14   | hsa-miR-124-3p  |
|         | hsa-miR-130a-3p |

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|---------|-----------------|
| ATG16L1 | hsa-miR-1-3p    |
|         | hsa-miR-146a-5p |
|         | hsa-miR-155-5p  |
|         | hsa-miR-15a-5p  |
|         | hsa-miR-16-5p   |
|         | hsa-miR-191-5p  |
|         | hsa-miR-195-5p  |
|         | hsa-miR-19b-3p  |
|         | hsa-miR-210-3p  |
|         | hsa-miR-212-3p  |
|         | hsa-miR-221-3p  |
|         | hsa-miR-224-5p  |
|         | hsa-miR-23a-3p  |
|         | hsa-miR-23b-3p  |
|         | hsa-miR-26a-5p  |
|         | hsa-miR-34a-5p  |
|         | hsa-miR-424-5p  |
|         | hsa-miR-588     |
|         | hsa-miR-616-5p  |
|         | hsa-miR-9-5p    |
|         | hsa-let-7a-5p   |
|         | hsa-let-7b-5p   |
|         | hsa-let-7c-5p   |
|         | hsa-let-7e-5p   |
|         | hsa-let-7f-5p   |
|         | hsa-let-7g-5p   |
|         | hsa-let-7i-5p   |

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hsa-miR-103a-3p

hsa-miR-106a-5p

hsa-miR-106b-5p

hsa-miR-107

hsa-miR-1179

hsa-miR-1207-5p

hsa-miR-1234-3p

hsa-miR-124-3p

hsa-miR-126-5p

hsa-miR-128-3p

hsa-miR-1306-5p

hsa-miR-130a-3p

hsa-miR-130b-3p

hsa-miR-1343-3p

hsa-miR-1-3p

hsa-miR-141-3p

hsa-miR-147b

hsa-miR-148a-3p

hsa-miR-148a-5p

hsa-miR-148b-3p

hsa-miR-148b-5p

hsa-miR-155-5p

hsa-miR-17-5p

hsa-miR-181c-3p

hsa-miR-185-3p

hsa-miR-1914-3p

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| hsa-miR-191-5p  |
| hsa-miR-196a-5p |
| hsa-miR-196b-5p |
| hsa-miR-19a-3p  |
| hsa-miR-19b-3p  |
| hsa-miR-200a-3p |
| hsa-miR-200b-3p |
| hsa-miR-20a-5p  |
| hsa-miR-20b-5p  |
| hsa-miR-212-5p  |
| hsa-miR-216a-5p |
| hsa-miR-224-5p  |
| hsa-miR-26a-5p  |
| hsa-miR-26b-5p  |
| hsa-miR-27a-5p  |
| hsa-miR-29a-3p  |
| hsa-miR-29a-5p  |
| hsa-miR-29b-3p  |
| hsa-miR-29c-3p  |
| hsa-miR-301a-3p |
| hsa-miR-301b-3p |
| hsa-miR-30a-3p  |
| hsa-miR-30d-3p  |
| hsa-miR-30e-3p  |
| hsa-miR-3187-3p |
| hsa-miR-331-3p  |

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|      | hsa-miR-331-5p      |
|      | hsa-miR-338-3p      |
|      | hsa-miR-3934-5p     |
|      | hsa-miR-423-5p      |
|      | hsa-miR-452-3p      |
|      | hsa-miR-452-5p      |
|      | hsa-miR-454-3p      |
|      | hsa-miR-494-3p      |
|      | hsa-miR-5008-3p     |
|      | hsa-miR-522-5p      |
|      | hsa-miR-588         |
|      | hsa-miR-652-3p      |
|      | hsa-miR-7-5p        |
|      | hsa-miR-93-5p       |
|      | hsa-miR-941         |
|      | hsa-miR-98-5p       |
|      | kshv-miR-K12-10a-3p |
|      | hsa-miR-124-3p      |
|      | hsa-miR-125a-3p     |
|      | hsa-miR-135b-5p     |
|      | hsa-miR-1-3p        |
|      | hsa-miR-153-3p      |
| ATG5 | hsa-miR-155-5p      |
|      | hsa-miR-16-5p       |
|      | hsa-miR-182-5p      |
|      | hsa-miR-186-5p      |
|      | hsa-miR-19a-3p      |

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|       | hsa-miR-19b-3p  |
|       | hsa-miR-210-3p  |
|       | hsa-miR-24-3p   |
|       | hsa-miR-25-3p   |
|       | hsa-miR-30d-5p  |
|       | hsa-miR-32-5p   |
|       | hsa-miR-342-3p  |
|       | hsa-miR-377-5p  |
|       | hsa-miR-429     |
|       | hsa-miR-548b-3p |
|       | hsa-miR-5581-3p |
|       | hsa-miR-92a-3p  |
|       | hsa-miR-101-5p  |
|       | hsa-miR-103a-3p |
|       | hsa-miR-107     |
|       | hsa-miR-1224-5p |
|       | hsa-miR-124-3p  |
|       | hsa-miR-130a-3p |
|       | hsa-miR-130b-3p |
| BECN1 | hsa-miR-1-3p    |
|       | hsa-miR-147a    |
|       | hsa-miR-15a-5p  |
|       | hsa-miR-15b-5p  |
|       | hsa-miR-16-5p   |
|       | hsa-miR-183-5p  |
|       | hsa-miR-186-5p  |
|       | hsa-miR-191-5p  |

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|         | hsa-miR-195-5p  |
|         | hsa-miR-224-5p  |
|         | hsa-miR-28-5p   |
|         | hsa-miR-301a-3p |
|         | hsa-miR-301b-3p |
|         | hsa-miR-302a-3p |
|         | hsa-miR-302b-3p |
|         | hsa-miR-302c-3p |
|         | hsa-miR-302d-3p |
|         | hsa-miR-30a-3p  |
|         | hsa-miR-30a-5p  |
|         | hsa-miR-30b-5p  |
|         | hsa-miR-30c-5p  |
|         | hsa-miR-30d-5p  |
|         | hsa-miR-30e-3p  |
|         | hsa-miR-30e-5p  |
|         | hsa-miR-320a    |
|         | hsa-miR-323a-5p |
|         | hsa-miR-328-3p  |
|         | hsa-miR-424-5p  |
|         | hsa-miR-505-5p  |
|         | hsa-miR-522-5p  |
|         | hsa-miR-548b-3p |
|         | hsa-miR-550a-3p |
|         | hsa-miR-708-5p  |
|         | hsa-let-7g-3p   |
| MAP1LC3 | hsa-miR-106b-5p |

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| hsa-miR-124-3p   |
| hsa-miR-129-2-3p |
| hsa-miR-129-5p   |
| hsa-miR-132-3p   |
| hsa-miR-1-3p     |
| hsa-miR-145-5p   |
| hsa-miR-155-5p   |
| hsa-miR-16-5p    |
| hsa-miR-191-5p   |
| hsa-miR-192-5p   |
| hsa-miR-200b-3p  |
| hsa-miR-20a-5p   |
| hsa-miR-21-3p    |
| hsa-miR-218-5p   |
| hsa-miR-23b-3p   |
| hsa-miR-27a-5p   |
| hsa-miR-29a-5p   |
| hsa-miR-30a-5p   |
| hsa-miR-30c-2-3p |
| hsa-miR-335-5p   |
| hsa-miR-433-3p   |
| hsa-miR-4738-3p  |
| hsa-miR-483-3p   |
| hsa-miR-485-3p   |
| hsa-miR-495-3p   |
| hsa-miR-574-5p   |

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|      | hsa-miR-760      |
|      | hsa-miR-9-5p     |
|      | hsa-let-7a-3p    |
|      | hsa-let-7a-5p    |
|      | hsa-let-7b-5p    |
|      | hsa-let-7c-5p    |
|      | hsa-let-7f-1-3p  |
|      | hsa-let-7f-5p    |
|      | hsa-let-7g-5p    |
|      | hsa-let-7i-5p    |
|      | hsa-miR-106a-5p  |
|      | hsa-miR-106b-5p  |
|      | hsa-miR-1226-3p  |
|      | hsa-miR-124-3p   |
| ULK1 | hsa-miR-1254     |
|      | hsa-miR-1260a    |
|      | hsa-miR-1287-5p  |
|      | hsa-miR-129-2-3p |
|      | hsa-miR-1293     |
|      | hsa-miR-1301-3p  |
|      | hsa-miR-132-5p   |
|      | hsa-miR-1343-3p  |
|      | hsa-miR-1-3p     |
|      | hsa-miR-142-5p   |
|      | hsa-miR-146a-5p  |
|      | hsa-miR-146b-5p  |
|      | hsa-miR-147a     |

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| hsa-miR-155-5p  |
| hsa-miR-16-5p   |
| hsa-miR-17-5p   |
| hsa-miR-181a-5p |
| hsa-miR-181b-5p |
| hsa-miR-183-5p  |
| hsa-miR-186-5p  |
| hsa-miR-18a-3p  |
| hsa-miR-18a-5p  |
| hsa-miR-1908-5p |
| hsa-miR-1910-5p |
| hsa-miR-19a-3p  |
| hsa-miR-200b-3p |
| hsa-miR-203a-3p |
| hsa-miR-20a-5p  |
| hsa-miR-20b-5p  |
| hsa-miR-2114-5p |
| hsa-miR-21-3p   |
| hsa-miR-221-5p  |
| hsa-miR-22-3p   |
| hsa-miR-23a-3p  |
| hsa-miR-23b-3p  |
| hsa-miR-26a-5p  |
| hsa-miR-26b-5p  |
| hsa-miR-27a-5p  |
| hsa-miR-296-5p  |

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| hsa-miR-29a-3p   |
| hsa-miR-29b-3p   |
| hsa-miR-29c-3p   |
| hsa-miR-3065-3p  |
| hsa-miR-30b-3p   |
| hsa-miR-30c-1-3p |
| hsa-miR-30c-2-3p |
| hsa-miR-320a     |
| hsa-miR-320b     |
| hsa-miR-320c     |
| hsa-miR-320d     |
| hsa-miR-32-5p    |
| hsa-miR-331-3p   |
| hsa-miR-335-5p   |
| hsa-miR-338-3p   |
| hsa-miR-338-5p   |
| hsa-miR-33b-3p   |
| hsa-miR-33b-5p   |
| hsa-miR-342-5p   |
| hsa-miR-34a-5p   |
| hsa-miR-34c-5p   |
| hsa-miR-361-3p   |
| hsa-miR-3661     |
| hsa-miR-378a-3p  |
| hsa-miR-378c     |
| hsa-miR-378d     |

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| hsa-miR-378i    |
| hsa-miR-3943    |
| hsa-miR-421     |
| hsa-miR-424-5p  |
| hsa-miR-4487    |
| hsa-miR-4804-5p |
| hsa-miR-484     |
| hsa-miR-489-3p  |
| hsa-miR-490-5p  |
| hsa-miR-497-5p  |
| hsa-miR-5008-5p |
| hsa-miR-503-5p  |
| hsa-miR-505-5p  |
| hsa-miR-5690    |
| hsa-miR-589-5p  |
| hsa-miR-590-5p  |
| hsa-miR-615-5p  |
| hsa-miR-642a-5p |
| hsa-miR-744-5p  |
| hsa-miR-760     |
| hsa-miR-769-3p  |
| hsa-miR-873-5p  |
| hsa-miR-92a-3p  |
| hsa-miR-92b-3p  |
| hsa-miR-93-3p   |
| hsa-miR-93-5p   |

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|        | hsa-miR-9-3p    |
|        | hsa-miR-940     |
|        | hsa-miR-99b-5p  |
|        | hsa-let-7b-5p   |
|        | hsa-let-7d-5p   |
|        | hsa-miR-100-5p  |
|        | hsa-miR-122-5p  |
|        | hsa-miR-124-3p  |
|        | hsa-miR-1343-3p |
|        | hsa-miR-144-3p  |
|        | hsa-miR-16-2-3p |
|        | hsa-miR-16-5p   |
|        | hsa-miR-17-5p   |
|        | hsa-miR-191-5p  |
|        | hsa-miR-199a-3p |
|        | hsa-miR-20a-3p  |
|        | hsa-miR-20a-5p  |
|        | hsa-miR-21-3p   |
|        | hsa-miR-218-5p  |
| MTOR   | hsa-miR-221-3p  |
|        | hsa-miR-223-3p  |
|        | hsa-miR-27a-3p  |
|        | hsa-miR-30a-5p  |
|        | hsa-miR-3657    |
|        | hsa-miR-373-3p  |
|        | hsa-miR-382-5p  |
|        | hsa-miR-421     |
|        | hsa-miR-424-5p  |
|        | hsa-miR-4425    |
|        | hsa-miR-497-5p  |
|        | hsa-miR-520c-3p |
|        | hsa-miR-548o-3p |
|        | hsa-miR-616-5p  |
|        | hsa-miR-766-3p  |
|        | hsa-miR-95-3p   |
|        | hsa-miR-99a-5p  |
|        | hsa-let-7a-3p   |
|        | hsa-let-7a-5p   |
|        | hsa-let-7b-5p   |
| PRKAA1 | hsa-let-7c-5p   |
|        | hsa-let-7e-5p   |
|        | hsa-let-7f-1-3p |
|        | hsa-let-7f-5p   |

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| hsa-let-7g-3p   |
| hsa-let-7g-5p   |
| hsa-let-7i-5p   |
| hsa-miR-103a-3p |
| hsa-miR-106b-5p |
| hsa-miR-107     |
| hsa-miR-10a-3p  |
| hsa-miR-122-5p  |
| hsa-miR-124-3p  |
| hsa-miR-126-5p  |
| hsa-miR-1276    |
| hsa-miR-128-3p  |
| hsa-miR-1290    |
| hsa-miR-1301-3p |
| hsa-miR-1304-3p |
| hsa-miR-1306-5p |
| hsa-miR-130a-3p |
| hsa-miR-130b-3p |
| hsa-miR-133a-3p |
| hsa-miR-1-3p    |
| hsa-miR-141-3p  |
| hsa-miR-141-5p  |
| hsa-miR-146a-5p |
| hsa-miR-146b-5p |
| hsa-miR-147a    |
| hsa-miR-148a-3p |

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| hsa-miR-148b-3p  |
| hsa-miR-152-3p   |
| hsa-miR-182-5p   |
| hsa-miR-188-5p   |
| hsa-miR-194-5p   |
| hsa-miR-19a-3p   |
| hsa-miR-19a-5p   |
| hsa-miR-19b-1-5p |
| hsa-miR-19b-3p   |
| hsa-miR-200a-3p  |
| hsa-miR-205-3p   |
| hsa-miR-20a-5p   |
| hsa-miR-216b-5p  |
| hsa-miR-217      |
| hsa-miR-218-5p   |
| hsa-miR-224-3p   |
| hsa-miR-224-5p   |
| hsa-miR-23a-3p   |
| hsa-miR-23b-3p   |
| hsa-miR-26a-5p   |
| hsa-miR-27a-3p   |
| hsa-miR-27b-3p   |
| hsa-miR-28-5p    |
| hsa-miR-29a-3p   |
| hsa-miR-29b-3p   |
| hsa-miR-29c-3p   |

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hsa-miR-301a-3p

hsa-miR-301b-3p

hsa-miR-30a-3p

hsa-miR-30a-5p

hsa-miR-30d-3p

hsa-miR-30e-3p

hsa-miR-3145-3p

hsa-miR-3168

hsa-miR-320a

hsa-miR-320b

hsa-miR-320c

hsa-miR-320d

hsa-miR-328-3p

hsa-miR-335-3p

hsa-miR-339-5p

hsa-miR-33b-5p

hsa-miR-340-5p

hsa-miR-361-5p

hsa-miR-3619-5p

hsa-miR-373-3p

hsa-miR-374a-3p

hsa-miR-374a-5p

hsa-miR-421

hsa-miR-425-5p

hsa-miR-4326

hsa-miR-4454

hsa-miR-451a

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hsa-miR-454-3p

hsa-miR-4687-5p

hsa-miR-4690-5p

hsa-miR-483-3p

hsa-miR-499a-5p

hsa-miR-5008-3p

hsa-miR-500a-3p

hsa-miR-500a-5p

hsa-miR-505-3p

hsa-miR-548a-3p

hsa-miR-548e-3p

hsa-miR-5581-5p

hsa-miR-571

hsa-miR-579-3p

hsa-miR-589-5p

hsa-miR-590-3p

hsa-miR-605-5p

hsa-miR-617

hsa-miR-628-5p

hsa-miR-664b-3p

hsa-miR-708-5p

hsa-miR-7-1-3p

hsa-miR-7-5p

hsa-miR-769-3p

hsa-miR-93-3p

hsa-miR-93-5p

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|----------------|
| hsa-miR-941    |
| hsa-miR-96-5p  |
| hsa-miR-98-5p  |
| hsa-miR-99b-3p |

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